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TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL
SPACE SHUTTLE 0.0175-SCALE ORBITER MODELS 56-0/60-0
AND 0.04-SCALE ORBITER FOREBODY MODEL 83-0
CONDUCTED IN THE NASA/ARC 3.5-FOOT HYPERSONIC
WIND TUNNEL (TEST OH110)

by

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WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 3.5-253
NASA Series Number: OH-110
Model Numbers: 56-0, 60-0 and 83-0
Test Dates: November 17 to December 12, 1980 and
January 21 to 30, 1981
Occupancy Hours: 168

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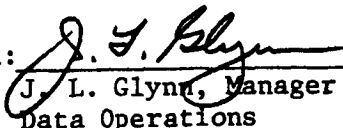
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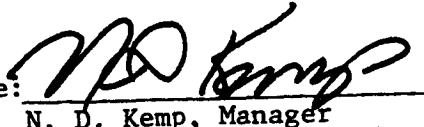
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TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL SPACE
SHUTTLE 0.0175-SCALE ORBITER MODELS 56-0/60-0 AND 0.04-SCALE
ORBITER FOREBODY MODEL 83-0 CONDUCTED IN THE NASA/ARC
3.5-FOOT HYPERSONIC WIND TUNNEL (TEST OH110)

by J. Gee

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ABSTRACT

Test OH110 was conducted in the NASA/ARC 3.5-Foot Hypersonic Wind Tunnel to obtain orbiter heating data to establish Mach number sensitivity of orbiter in yaw. These tests were conducted from November 17, 1980 through December 12, 1980 and from January 21, 1981 through January 30, 1981. The NASA-AMES identification number was ARC-3.5HWT-253. The test title was "Heat-Transfer Tests of the Space Shuttle 0.0175-Scale Orbiter Models 56-0/60-0 and 0.04-Scale Orbiter Forebody 83-0".

The tests were conducted at nominal Mach numbers of 5.3 and 7.3 using the thin-skin thermocouple technique. Simulated unit Reynolds numbers were 2.0, 3.7, 5.0 and 9.0×10^6 . The models were tested at angles of attack of 20, 22.5, 25, 27.5, 30., 32.5 and 34.2 degrees at sideslip angles of 0, ± 1 and ± 2 degrees.

A total of 81 runs were obtained. Summary of the test run per model is as follows:

Runs 1 - 13: Model 83-0
Runs 14 - 29: Model 56-0
Runs 30 - 81: Model 60-0

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INTRODUCTION

This report contains data from wind tunnel tests in the NASA/Ames Research Center 3.5-foot Hypersonic Wind Tunnel. The tests were conducted during the periods from November 17 to December 12, 1980, and from January 21, 1981 to January 30, 1981 for a total of 168 occupancy hours.

The objective of the test was to obtain orbiter heating data to establish Mach number sensitivity of the orbiter in yaw. Data from 75 30-gage iron-constantan thermocouples (T/C's) were recorded on magnetic tape.

Tests were conducted under conditions at a nominal stagnation temperature of 1300° Rankine, simulating free air at Mach numbers 5.3 and 7.3 with corresponding Reynolds numbers of 2.0 to $9.0 \times 10^6/\text{ft}$. The model's attitude varied in angle-of-attack from 20° to 34.2° with yaw angles of 0 , ± 1 and ± 2 degrees.

Model 60-0 was tested with the vertical tail speedbrake configuration at 0 and 49 degrees.

NOMENCLATURE

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>
a		Intercept of straight line curve fit (generalized)
AFFDL		Air Force Flight Dynamics Lab
b		Thickness of model skin
B.P.		Butt plane
C		Specific heat of model skin material
c_p		Specific heat of air stream (perfect gas value)
C_0, C_1, C_2		Curve fit constants
$\delta T_w / \delta t$	DTW/DT	Rate of change of wall temperature, $^{\circ}\text{R}/\text{sec.}$
h	H	Heat transfer coefficient at model wall for given thermocouple location, $\text{BTU}/\text{ft}^2\text{-sec-}^{\circ}\text{R}$
h_s	HREF HS SPHERE	Stagnation point heat transfer coefficient for reference sphere, $\text{BTU}/\text{ft}^2\text{-sec-}^{\circ}\text{R}$
H_{aw}	HAW	Adiabatic wall enthalpy
H_t	HT	Freestream total enthalpy
H_{wi}	HW	Enthalpy based on model wall temperature for a given thermocouple location at initial time.
h/h_s	H/HREF	Ratio of model heat transfer coefficient to heat transfer coefficient of reference sphere (usually followed by appropriate recovery factor, $R = 1.0$, $R = 0.9$ or $R = 0.85$)
	H(TT)	Heat transfer coefficient of reference sphere with recovery factor of 1.0, $\text{BTU}/\text{ft}^2\text{-sec-}^{\circ}\text{R}$
	H(9TT)	Heat transfer coefficient of reference sphere with recovery factor of 0.9, $\text{BTU}/\text{ft}^2\text{-sec-}^{\circ}\text{R}$
	H85TT	Heat transfer coefficient of reference sphere with recovery factor of 0.85, $\text{BTU}/\text{ft}^2\text{-sec-}^{\circ}\text{R}$

NOMENCLATURE (Continued)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>
	H.L.	Hinge line
	LINE	Word used to define array of T/C's on 83-0 model canopy
	L.E.	Leading edge
M	MACH	Freestream Mach number
m		Generalized straight line slope
OMS	OMS	Orbital Maneuvering System
P _O	PINF	Freestream static pressure, psia
P _T	PT	Freestream total pressure, psia
q	Q	Freestream dynamic pressure, psi
\dot{q}_i	QDOT	Heat transfer rate at model wall for given T/C location at initial time; BTU/ft ² -sec
\dot{q}_s	QREF	Heat transfer rate at stagnation point of reference sphere at initial time, BTU/ft ² -sec.
R _n	RN/L	Freestream Reynolds number per foot X 10 ⁻⁶
R	R	Recovery factor.
R _s	R	Reference sphere radius, ft.
	RAY	Word used to define array of T/C's on 83-0 model canopy
S _t	STN NO	Stanton Number
T _t	TT	Tunnel freestream total temperature, °R
T _{wi}		Model wall temperature for given thermocouple location at initial time, °R
t		Time, sec
T _{aw}		Adiabatic wall temperature, °R

NOMENCLATURE (Concluded)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>
	T.E.	Trailing edge
V_{∞}	VINF	Freestream velocity, ft/sec.
W		Density of model skin material, lbm/ft ³
$(X/C)_v$	XV/CV	Percent of Vertical tail chord
$(X/L)_B$, $X/L(REF)$	XB/LB X/L	Percent of Body Length
X_O	XO	Full scale dimension from a point 235 inches forward of orbiter nose, inches (longitudinal)
Y_O	YO	Full scale dimension from orbiter centerline, inches (lateral)
Z_O	ZO,ZB	Full scale dimension from reference point parallel to Z-axis, inches (vertical)
$(Z/B)_v$	ZV/BV	Percent of Vertical tail height
α	ALPHA	Model angle of attack, degrees
β	BETA	Model sideslip angle, degrees
δ_{SB}	SPDBRK	Speedbrake deflection angle, degrees
δ_e	ELEVON	Elevon deflection angle, degrees
μ	MU	Freestream viscosity, lb-sec/ft ²
ρ	RHO	Freestream density, slugs/ft ³
ϕ	PHI	Model roll angle, degrees

Subscripts

aw	adiabatic wall
i	initial time
t	total condition
w	wall

INSTRUMENTATION AND CONFIGURATIONS INVESTIGATED

MODEL 83-0:

The Model 83-0 is a 0.04-scale forebody model with thermocouples spot-welded to the thin-skin surfaces. The model was constructed of 17-4 PH Stainless Steel with instrumented areas having a nominal skin thickness of 0.030 inches. Only the forward 50 percent of the fuselage was represented. The model was constructed to Rockwell International Orbiter VL70-000140C lines as described for the following 83-0 model components:

B60 Fuselage (50% X/L)
C10 Canopy

The following thermocouples (T/C) were used for this test:

<u>No. (T/C) Used</u>	<u>Component</u>	<u>(T/C) ID</u>	<u>(T/C) Type</u>
44	Canopy	See Table IV	Chromel-Constantan
6	Hatch	↓	Chromel-Constantan
25	Upper $\frac{1}{2}$ Fuselage	↓	Chromel-Constantan

MODEL 56-0

The Model 56-0 is a 0.0175-scale model of the Rockwell International Vehicle 5 configuration. This model was originally model 2B of the phase-change paint models. The model has been modified by placing a thin-skin insert in the left-hand side of the fuselage which is contoured to the VL70-000140C vehicle lines. Instrumentation consists of 80 thirty-gage chromel-constantan thermocouples spot-welded to the 17-4 Ph stainless steel insert which has a nominal skin thickness of 0.020 inches.

INSTRUMENTATION AND CONFIGURATIONS INVESTIGATED
(Continued)

Only 75 thermocouples were used for this test due to facility instrumentation limitations. The nomenclature used to describe model 56-0 vehicle 5 configuration is as follows:

<u>Component</u>	<u>Definitions</u>
B62	Fuselage
C12	Canopy
E52	Elevon
F10	Bodyflap
M16	OMS pods
W127	Wing
V30	Vertical Tail

For individual thermocouple locations, see Table V.

MODEL 60-0:

The model 60-0 was a 0.0175-scale thin-skin thermocouple model of Rockwell International Vehicle 5 Configuration. This configuration reflects VL70-000140C vehicle lines.

The model 60-0 was constructed of 17-4 PH stainless steel with a nominal skin thickness of 0.030-inch in the instrumented areas.

The following nomenclature was used to describe model 60-0 components for this test:

<u>Component</u>	<u>Definitions</u>
B62	Fuselage
C12	Canopy
M16	OMS pads
W116	Wing
E52	Elevon
V8	Vertical Tail
R18	Rudder
F10	Bodyflap

INSTRUMENTATION AND CONFIGURATIONS INVESTIGATED
(Continued)

Yaw angles were achieved by using a special adapter in the model support for tests at sideslip angles of 0, ± 1 and ± 2 degrees.

The following thermocouples (T/C) were used with this test model:

<u>No. (T/C) Used</u>	<u>Component</u>	<u>(T/C) ID</u>	<u>(T/C) TYPE</u>
11	Speedbrake	See Figure 2	Iron-Constantan
11	Canopy	See Table VII	Iron-Constantan
53	OMS Pods	See Table VI	Iron-Constantan

A listing of model bad thermocouples appears on the following page.

INSTRUMENTATION AND CONFIGURATIONS INVESTIGATED
(Concluded)

LISTING OF MODEL BAD THERMOCOUPLES

<u>Model</u>	<u>Run</u>	<u>Thermocouple No.</u>	<u>Remarks</u>		<u>Skin-Thickness</u>
83-0	1-13	412	Unstable (upper fuselage thermocouple)		
56-0	14-29	None	All thermocouples are good		
60-0	30-81	6	Replace with thermocouple 61	61	0.029
		33		58	0.037
		195		177	0.040
		360		381	0.038
		371		382	0.0298
60-0	51-81	7	Open		
		8	Open (Unstable)		
	63-81	2	Vary with (-) readings		

TEST FACILITY DESCRIPTION

The NASA-Ames 3.5-Foot Hypersonic Wind Tunnel is a closed-circuit, blow-down-type tunnel capable of operating at nominal Mach numbers of 5, 7, and 10 at pressures to 1800 psia and temperatures to 3400°R for run times to four minutes. The major components of the facility include a gas storage system where the test gas is stored at 3000 psi, a storage heater filled with aluminum-oxide pebbles capable of heating the test gas to 3400°R, axisymmetric contoured nozzles with exit diameters of 42 inches for generating the desired Mach number, and a 900,000 ft³ vacuum storage system which operates to pressures of 0.3 psia. The test section itself is an open-jet type enclosed within a chamber approximately 12-feet in diameter and 40-feet in length, arranged transversally to the flow direction.

A model support system is provided that can pitch models through an angle-of-attack range of -20 to +20 degrees, in a vertical plane, about a fixed point of rotation on the tunnel centerline. This rotation point is adjustable from 1 to 5 feet from the nozzle exit plane. The model normally is out of the test stream (strut centerline 37-inches from tunnel centerline) until the tunnel test conditions are established after which it is inserted. Insertion time is adjustable to as little as 1/2 second and models may be inserted at any strut angle.

TEST FACILITY DESCRIPTION (Concluded)

A high-speed, analog-to-digital data acquisition system is used to record test data on magnetic tape. The present system is equipped to measure and record the outputs from 80 transducers in addition to 20 channels of tunnel parameters.

TEST PROCEDURES

Model 83-0 was sting mounted through the rear of the orbiter 50 percent forebody base at X_0 880.15. Models 56-0 and 60-0 were sting mounted through the orbiter's base. All instrumentation leads passed through the model stings and were routed externally along the main sting for approximately 3 feet to allow for model pitch, roll and yaw.

The thermocouple leads were connected to the tunnel's patch board individually. Data from 75 thermocouples were recorded on magnetic tape at 0.07 second intervals. The model was cooled uniformly to approximately 20°F, then the model was inserted into the test section and data were recorded. Total time on centerline was approximately one second.

Before and after each test run, tabulated monitor data were checked to insure that the model was isothermal and all thermocouples were functioning properly.

DATA REDUCTION*

All test data were reduced at the NASA Ames Research Center using the data-reduction techniques outlined below. The thermocouple data were reduced using the one-dimensional, thin-wall equation:

$$\dot{q} = WCb \frac{dT_w}{dt} = h (H_{aw} - H_w) \equiv hH_t \left(\frac{H_{aw}}{H_t} - \frac{H_w}{H_t} \right) \quad (1)$$

which neglects heat-conduction losses.

Assuming that W and h are constant and

$$C = C_0 + C_1 T_w + C_2 T_w^2 \text{ for } T_w \text{ ranges,} \quad (2)$$

the integration of equation (1) for $t = t_1$ to t and $T_w = T_{w1}$ to T_w yields the linear equation:

$$\begin{aligned} f(T_w) &= -\ln \left(\frac{T'_{aw} - T_w}{T'_{aw} - T_{w1}} \right) - \left[\frac{C_1}{C'_{aw}} + \frac{C_2}{C'_{aw}} \left(T'_{aw} + \frac{T_w + T_{w1}}{2} \right) \right] (T_w - T_{w1}) \\ &= \frac{h c_p}{W C'_{aw} b} (t - t_1) \end{aligned} \quad (3)$$

where it is defined that:

$$T'_{aw} \equiv \frac{H_{aw}}{c_p} \equiv \frac{H_{aw}}{H_t} \frac{H_t}{c_p} \geq (T_{aw})_{PG} \quad (4)$$

$$C'_{aw} \equiv C_0 + C_1 T'_{aw} + C_2 T'^2_{aw} \quad (5)$$

\neq specific heat at adiabatic wall temperature

* Data Reduction Section contributed by Mr. W. K. Lockman, Ames Research Center.

DATA REDUCTION (Continued)

The form of Eq. (3) is $f(T_w) = mt + a$ where m is the slope and a is the intercept for a straight line if heat-conduction errors are negligible. Thus, deviations from a straight line can indicate heat conduction effects.

The slope, m , of $f(T_w)$ vs t from Eq. (3) is computed by a least-squares, straight-line fit over a finite time interval (approximately one second) beginning when the model reaches uniform tunnel flow. The value of the heat-transfer coefficient, h , is then determined from:

$$h = \frac{WC'_{awb}}{c_p} m \quad (6)$$

Using this value of h , the heat-transfer rate is evaluated at the initial time, t_i , when the model is isothermal at the initial wall enthalpy, H_{wi}

$$\dot{q} = \dot{q}_i = h (H_{aw} - H_{wi}) \equiv h H_t \left(\frac{H_{aw}}{H_t} - \frac{H_{wi}}{H_t} \right) \quad (7)$$

where H_{aw}/H_t is the same value used to evaluate h . The resultant value of \dot{q} is independent of the value of H_{aw}/H_t used for both the h and \dot{q} evaluations.

The reference sphere heating is also evaluated at the initial wall enthalpy by the method of Fay and Riddell (Ref. 1):

$$\dot{q}_s = h_s (H_t - H_{wi}) \equiv h_s H_t \left(1.0 - \frac{H_{wi}}{H_t} \right) \quad (8)$$

The model-to-sphere ratio of heat transfer coefficients was then determined from Eqs. (7) and (8) as

DATA REDUCTION (Continued)

$$\frac{h}{h_s} = \frac{\dot{q}_i}{\dot{q}_s} \left[\frac{1.0 - H_{w1}/H_t}{H_{aw}/H_t - H_{w1}/H_t} \right] \quad (9)$$

where \dot{q}_i is constant for all values of H_{aw}/H_t . To determine h/h_s for various values of H_{aw}/H_t , the particular value of H_{aw}/H_t is substituted into Eq. (9).

The Stanton number is defined as

$$St \equiv \frac{h}{\rho u} = \frac{\dot{q}_i}{\rho u (H_{aw} - H_{w1})} \quad (10)$$

where for freestream conditions, $\rho u = \rho_\infty V_\infty$.

The calculations of the model heating, reference sphere heating, and Reynolds number included the corrections of NACA report 1135 (Ref. 2) for calorically imperfect, thermally perfect air. Keyes equation for viscosity (see Ref. 3) was used for the sphere heating and Reynolds number computations:

$$\mu = \frac{0.0232 \times 10^{-6} T^{0.5}}{1 + \frac{220}{T} \times 10^{-9}/T} \quad (11)$$

where the units for T and μ are $^{\circ}R$ and lb-sec/ft, respectively.

Material Properties

The instrumented areas of the model were constructed of 17-4 PH stainless steel. The material thermal properties necessary for thin wall T/C data reduction are listed below.

DATA REDUCTION (Concluded)

Material density: $W = 490 \text{ lb/ft}^3$

Material specific heat: $c = 0.0797 + 5.556 \times 10^{-5} T \frac{\text{BTU}}{\text{lbm-}^\circ\text{R}}$

REFERENCES

1. Fay, J. A. and Riddell, F. R.: "Theory of Stagnation Point Heat Transfer in Dissociated Air", Journal of Aeronautical Sciences, Vol. 25, No. 1, February 1958, pp. 73-85.
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4. SD78-SH-0034, "Pretest Information for Testing the 0.0175-Scale Thin Skin Thermocouple Model 60-OTS in the NASA/ARC 3.5-Foot Hypersonic Wind Tunnel, Test IH-90", dated January 12, 1978.
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6. NA-74-932, "Structural Analysis of the 0.0175-Scale SSV Heat Transfer Model (60-OTS)".
7. SOD-80-0441, "Pretest Information for Thin Skin Heat Transfer Tests of the Space Shuttle 0.0175-Scale Orbiter Models 56-0/60-0 and 0.04-Scale Orbiter Forebody Model 83-0 in the NASA/ARC 3.5-Foot Hypersonic Wind Tunnel (Test OH-110)", dated October 1980.
8. SAS/AERO/81-133, "Post-Test Information for Orbiter Yaw Heating Tests OH-110 (ARC 3.5-Foot Hypersonic Wind Tunnel) Using the 0.0175-Scale Models 56-0, 60-0 and 0.04-Scale Model 83-0", dated February 17, 1981.

TABLE II

ARC 35HWT-253

TEST: OH110

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 5 Feb 1981

SRH- Pg 1 of 2

DATA SET IDENTIFIER		CONFIGURATION	TEST RUN NUMBERS												
			M	β	R _n	δ_{225}	T _{TR}	20.0	22.5	25.0	27.5	30.0	32.5	34.2	
RAG#01		60- ϕ	53	0	3.7	0°	1300	30	32	34	36	38	40	42	
02			T	T	T	T	T				44				
03			T		5.0			31	33	35	37	39	41	43	
04			73		3.7			60		61	62	63			
05			T		9.0	T		67		66	65	64			
06			53		3.7	49°		47		48	77	80			
07			T		5.0	T		46		49	78	79			
08			T		T				81						
09			73		3.7			51		52	53	56			
10			T		T				76						
11				T	9.0	T		59		58	57	55			
12				-2	3.7	0°					68				
13				T	9.0	T					69				
14				-1	3.7						72				
15				T	9.0						73				
16				1	3.7						75				
17				T	9.0						74				
18				2	3.7						71				
19			T	T	9.0	T	T				70				

COEFFICIENTS

 α OR β
SCHEDULES

IDVARI (1) IDVARI (2) IDVARI (3)

- * B - Fuse lags
 C - Canopy
 ϕ - OMS Pod
 V - Vertical Tail
 H - Escape Hatch

TABLE II (Concluded)

ARC 3.5 HWT -253

TEST: OH IO

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 5 Feb 1981

Pa 2 of 2

[illegible]

For Run #6, $\alpha = 30.5$



TABLE III MODEL DIMENSIONAL DATA

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B₆₀

GENERAL DESCRIPTION : 50% orbiter forebody, vehicle 140C.

NOTE: This body includes a small portion of the wing glove.

MODEL SCALE: 0.040 (83-0 MODEL)

DRAWING NUMBER: VL70-000140C

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>645.15</u>	<u>25.80</u>
Max Width	<u>330.00</u>	<u>13.20</u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: BODY - B₆₂

GENERAL DESCRIPTION: Configuration 140C orbiter fuselage, MCR 200-R4. Similar to 140A/B fuselage except aft body revised and improved mid-body-wing-boot fairing, $X_0 = 940$ to $X_0 = 1040$.

MODEL SCALE: 0.0175 (Models 56-0 & 60-0)

DRAWING NUMBER: VL70-000140C, -000202C, -000205A

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (IML: FWD Sta. $X_0=238$), In.	1290.3	22.58
Length (OML: FWD Sta. $X_0=235$), In.	1293.3	22.63
Max. Width (At $X_0 = 1528.3$), In.	264.0	4.62
Max. Depth (At $X_0 = 1464$), In.	250.0	4.38
Fineness Ratio	4.899	4.899
Area, Ft. ²		
Max. Cross-Sectional	340.885	0.104



TABLE III (Continued)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C₁₀

GENERAL DESCRIPTION : Configuration 4 canopy and windshield as used
with B₂₅, six glass panes in windshield.

MODEL SCALE: 0.040, (83-0 MODEL)

DRAWING NUMBER : VL70-000140B, 140C, 202B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ($X_0 = 434.643$ to 670), In.	<u>235.357</u>	<u>9.414</u>
Max Width	<u></u>	<u></u>
Max Depth (Glass, In.	<u>28.00</u>	<u>1.12</u>
Fineness Ratio	<u></u>	<u></u>
Area	<u></u>	<u></u>
Max. Cross-Sectional	<u></u>	<u></u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>
Nose/windshield intersection, $X_0 =$	<u>434.643</u>	<u>17.386</u>

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: CANOPY - C₁₂

GENERAL DESCRIPTION: Configuration 140C orbiter canopy. Vehicle cabin No. 31 updated to MCR 200-R4. Used with fuselage B₆₃.

MODEL SCALE: 0.0175 (*Models 56-0 & 60-0*)

DRAWING NUMBER: VL70-000140C, -000202B, -000204

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ($X_0=434.643$ to 578), In.	143.357	2.508
Max. Width (At $X_0=513.127$), In.	152.412	2.667
Max. Depth ($Z_0=501$ to 449.39), In.	51.61	0.903

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: ELEVON - E52

GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at X_0 1387, elevon split line $X_0 = 312.5$, 6.0", beveled edges, and center-bodies.

MODEL SCALE: 0.0175 (*Models 56-0 & 60-0*)

DRAWING NUMBER: VL70-000140C, -006089, -006092

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area, Ft^2	210.0	0.064
Span (equivalent), In.	349.2	6.111
Inb'd equivalent chord, In.	118.0	2.065
Outb'd equivalent chord, In.	55.19	0.966
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.2096	0.2096
At Outb'd equiv. chord	0.4004	0.4004
Sweep Back Angles, degrees		
Leading Edge	0.0	0.0
Trailing Edge	- 10.056	- 10.056
Hingeline	0.0	0.0
Area Moment (Product of area & \bar{c}), Ft^3	1587.25	0.008
Mean Aerodynamic Chord, In.	90.7	1.587
Hingeline dihedral (origin at $Z_0 = 261.3509$), deg.	5.229	5.229

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: BODY FLAP - F_{10}

GENERAL DESCRIPTION: Configuration 140C body flap. Hingeline located at $X_0 = 1532$, $Z_0 = 287$.

MODEL SCALE: 0.0175 (*Models 56-0 & 60-0*)

DRAWING NUMBER: VL70-000140C, -355114

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length, ($X_0=1525.5$ to $X_0=1613$), In.	87.50	1.531
Max. Width, (At L.E., $X_0=1525.5$), In.	256.00	4.480
Max. Depth ($X_0 = 1532$), In.	19.798	0.346
Area, Ft^2		
Max. Cross-Sectional (At H.L.)	35.196	0.011
Planform	135.00	0.041
Base ($X_0 = 1613$)	4.89	0.0015

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: OMS POD - M₁₆

GENERAL DESCRIPTION: Configuration 140C orbiter OMS Pod - Short pod.

MODEL SCALE: 0.0175 (*Models 56-0 & 60-0*)

DRAWING NUMBER: VL70-008401, -008410

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (OMS Fwd. Sta. $X_0=1310.5$), In.	258.50	4.524
Max. Width (At $X_0 = 1511$), In.	136.8	2.394
Max. Depth (At $X_0 = 1511$), In.	74.70	1.307
Fineness Ratio	2.484	2.484
Area, Ft ²		
Max. Cross-Sectional	58.864	0.018

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: RUDDER - R₁₈

GENERAL DESCRIPTION: The rudder is a secondary movable airfoil at the trailing edge of the vertical fin that imparts yaw forces. This dimensional data was calculated from the OML master dimensions.

MODEL SCALE: 0.0175 (Model 60-0)

DRAWING NUMBER: Vehicle 5 Configuration MCR 200, Rev. 7

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area, Ft ²	97.84	0.030
Span (equivalent), In.	198.614	3.476
Inb'd equivalent chord, In.	97.07	1.699
Outb'd equivalent chord, In.	50.80	0.889
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.833	34.833
Trailing Edge	26.249	26.249
Hingeline	34.833	34.833
Area Moment (Product of Area & \bar{c}), Ft ³	593.889	0.003
Mean Aerodynamic Chord, In.	72.840	1.275

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: VERTICAL - V8

GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail
(identical to configuration 140A/B vertical tail).

MODEL SCALE: 0.0175 (Model 60-0)

DRAWING NUMBER: VL70-000140C, -000146B

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo.), ft ² Planform	413.253	0.127
Span (Theo.), in.	315.72	5.530
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.25	26.25
0.25 Element Line	41.13	41.13
Chords:		
Root (Theo.) WP	268.50	4.699
Tip (Theo.) WP	108.47	1.898
MAC	199.81	3.497
Fus. Sta. of .25 MAC	1463.35	25.609
W.P. of .25 MAC	635.52	11.122
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle, deg.	10.00	10.00
Trailing Wedge Angle, deg.	14.92	14.92
Leading Edge Radius	2.00	2.00
Void Area	13.17	0.0040
Blanketed Area	0.0	0.0

TABLE III. (Continued)
MODEL DIMENSIONAL DATA

MODEL COMPONENT: VERTICAL - V₃₀

GENERAL DESCRIPTION: Slab sided vertical tail with extended span

MODEL SCALE: 0.0175, (56-0 MODEL)

DIMENSIONS:

TOTAL DATA

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area (Theo) - Ft ²	442.299	0.135
Planform		
Span - In.	358.57	6.275
Aspect Ratio	2.019	2.019
Rate of Taper	0.507	0.507
Taper Ratio	0.323	0.323
Sweep-Back Angles, Degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.25	26.25
0.25 Element Line	41.13	41.13
Chords:		
Root (Theo) WP	268.50	4.699
Tip (Theo) WP	86.75	1.518
MAC	193.12	3.380
Fus. Sta. of .25 MAC	1474.87	25.810
W.P. of .25 MAC	648.71	11.352
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle - Deg.	11.75	11.75
Trailing Wedge Angle - Deg	0.0	0.0
Leading Edge Radius	0.0	0.0
Void Area	0.0	0.0
Blanketed Area	0.0	0.0

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: WING - W116 (Model 60-0)
 GENERAL DESCRIPTION: Configuration 5. NOTE: Identical to W114 except airfoil thickness. Dihedral angle is along trailing edge of wing.
 Geometric twist = 0.
 MODEL SCALE: 0.0175 DRAWING NO.: VL70-00140A, -000200
 DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo.), ft ²		
Planform	2690.0	0.824
Span (Theo.), in.	936.68	16.392
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	3.500	3.500
Dihedral Angle, degrees	0.500	0.500
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.056	- 10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo.) B.P.O.O.	689.24	12.062
Tip, (Theo.) B.P.	137.85	2.412
MAC	474.81	8.309
Fus. Sta. of .25 MAC	1136.83	19.895
W.P. of .25 MAC	290.58	5.085
B.L. of .25 MAC	182.13	3.187
<u>EXPOSED DATA</u>		
Area (Theo.), ft ²	1751.50	0.536
Span, (Theo.), in. BP108	720.68	12.612
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	9.837
Tip 1.00 b/2	137.85	2.412
MAC	392.83	6.875
Fus. Sta. of .25 MAC	1185.98	20.755
W.P. of .25 MAC	294.30	5.150
B.L. of .25 MAC	251.77	4.406
Airfoil Section (Rockwell Mod NASA) XXXX-64		
Root b/2 =	0.113	0.113
Tip b/2 =	0.120	0.120
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area, ft ²	113.18	0.035
Leading Edge Intersects Fus M.L. @ Sta	500.00	8.750
Leading Edge Intersects Wing @ Sta	1024.00	17.920

TABLE III. MODEL DIMENSIONAL DATA (Concluded)

MODEL COMPONENT: <u>WING-W₁₂₇</u>		
GENERAL DESCRIPTION: <u>Configuration 140C orbiter wing, MCR 200-R4. Similar to 140A/B wing W₁₁₆ but with refinements: improved wing-boot-midbody fairing (X₀ = 940 to X₀ = 1040). Elevon split line relocated from Y₀ = 281 to Y₀ = 312.5).</u>		
MODEL SCALE: <u>0.0175, (56-0 MODEL)</u>		
TEST NO.	DWG. NO. <u>VL70-000140C, -000200B</u>	
DIMENSIONS:	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo.) Ft ²		
Planform	2690.00	0.824
Span (Theo) In.	936.68	16.392
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	3.000	3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.065	- 10.065
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	12.062
Tip, (Theo) B.P.	137.85	2.412
MAC	474.81	8.309
Fus. Sta. of .25 MAC	1136.83	19.895
W.P. of .25 MAC	290.58	5.085
B.L. of .25 MAC	182.18	3.187
<u>EXPOSED DATA</u>		
Area (Theo) Ft ²	1751.50	0.536
Span, (Theo) In. BP108	720.68	12.612
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	9.837
Tip 1.00 $\frac{b}{2}$	137.85	2.412
MAC	392.83	6.875
Fus. Sta. of .25 MAC	1185.98	20.755
W.P. of .25 MAC	294.30	5.150
B.L. of .25 MAC	251.77	4.406
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$ =	0.113	0.113
Tip $\frac{b}{2}$ =	0.120	0.120
Data for (1) of (2) Sides		
Leading Edge Cuff	113.18	0.035
Planform Area Ft ²	500.00	8.750
Leading Edge Intersects Fus M. L. @ Sta	1024.0	17.920
Leading Edge Intersects Wing @ Sta		

TABLE IV. MODEL 83-0, THERMOCOUPLE LOCATIONS
AND SKIN THICKNESS

CANOPY				HATCH			
T/C NO.	RAY	LINE	THICKNESS SKIN (IN.)	T/C NO.	Y ₀	X/L	THICKNESS SKIN (IN.)
177	1	4	.0308	224	-7.6	.1933	.0233
178	1	6	.0440	225	-7.6	.1972	.0268
179	2	6	.0469	226	-18.0	.1933	.0236
180	3	3	.0292	227	-18.0	.1972	.0328
181	3	4	.0304	228	-30.6	.1933	.0288
182	3	5	.0319	229	-30.6	.1972	.0288
183	4	1	.0281	NOSE UPPER 4			
184	4	2	.0306				
185	4	3	.0269				
186	4	4	.0281				
187	4	5	.0298				
188	4	6	.0592	T/C NO.	LINE	XB/LB	THICKNESS SKIN (IN.)
189	5	3	.0319	380	8	.0646	.0230
190	5	4	.0322	386	↓	.0989	.0265
191	5	5	.0342	391	↓	.1268	.0345
192	6	2	.0316	392	↓	.1305	.0335
193	6	6	.0431	393	↓	.1338	.0345
194	7	3	.0289	394	↓	.1376	.0340
195	7	4	.0276	395	↓	.1411	.0335
196	7	5	.0294	399	↓	.1556	.0279
197	8	1	.0222	401	↓	.1608	.0290
198	8	2	.0260	403	↓	.1664	.0272
199	8	3	.0301	404	↓	.1691	.0271
200	8	4	.0319	406	↓	.1748	.0271
201	8	5	.0316	407	↓	.1769	.0289
202	8	6	.0283	408	↓	.1800	.0328
203	9	3	.0278	410	↓	.1863	.0322
204	9	4	.0348	411	↓	.1894	.0336
205	9	5	.0349	412	↓	.1931	.0304
206	10	2	.0297	413	↓	.1972	.0300
207	10	6	.0300	FUSELAGE (Z ₀ = 400)			
208	11	3	.0301				
209	11	4	.0308				
210	11	5	.0299				
211	12	1	.0279				
212	12	2	.0302	T/C NO.	LINE	XB/LB	THICKNESS SKIN (IN.)
213	12	3	.0297	334	5	.225	.0255
215	12	5	.0318	335	↓	.250	.0289
216	12	6	.0318	336	↓	.275	.0262
217	12	7	.0319	337	↓	.300	.0308
218	13	3	.0309	338	↓	.325	.0269
220	13	5	.0308	339	↓	.350	.0302
222	14	2	.0276	341	↓	.400	.0279
223	14	6	.0304				

TABLE V. MODEL 56-0, THERMOCOUPLE LOCATIONS AND SKIN THICKNESS

T/C NO.	SKIN THICK.	Inches Model Scale			T/C NO.	Inches Model Scale			SKIN THICK.
		X (DIST FROM GCS NOSE)	Z	L (REF)		X (DIST FROM GCS NOSE)	Z	L (REF)	
1	.0215	6.224	7.656	.275	41	10.185	7.000	.45	.0195
2	.0210	6.789	7.735	.3	42	10.751		.475	.0200
3	.0217	7.356	7.788	.385	43	11.316		.5	.0200
4	.0215	7.922		.45	44	11.882		.525	.0190
5	.0212	8.486		.375	45	12.448		.55	.0200
6	.0217	9.053		.4	46	13.579		.6	.0205
7	.0215	9.619		.425	47	14.711		.65	.0210
8	.0218	10.185		.45	48	15.843		.7	.0202
9	.0219	10.751		.475	49	16.975		.75	.0205
10	.0220	11.316		.5	50	18.106		.8	.0208
11	.0220	11.882		.525	51	19.238		.85	.0180
12	.0222	12.448		.55	52	19.804		.875	.0180
13	.0220	13.579		.6	53	20.369		.9	.0160
14	.0220	14.711		.65	54	20.935		.925	.0170
15	.0228	15.843		.7	55	21.501	7.000	.950	.0220
16	.0220	16.475		.75	56	6.789	6.519	.3	.0170
17	.0230	18.106	7.788	.8	57	7.356		.325	.0170
18	.0190	6.450	7.350	.285	58	7.922		.35	.0170
19	.0189	7.627		.337	59	8.487		.375	.0170
20	.0189	8.827		.39	60	9.053		.4	.0170
21	.0190	9.642		.426	61	9.619		.425	.0170
22	.0200	10.819		.478	62	10.185		.45	.0172
23	.0200	11.995		.53	63	10.751		.475	.0175
24	.0205	12.833		.567	64	11.316		.5	.0180
25	.0205	16.032		.62	65	11.882		.525	.0180
26	.0205	15.164		.67	66	12.448		.55	.0190
27	.0207	15.956		.705	67	13.579		.6	.0198
28	.0203	16.973		.75	68	14.711		.65	.0190
29	.0202	18.106		.8	69	15.843		.7	.0200
30	.0160	18.649	7.350	.824	70	16.975		.75	.0200
31	.0210	4.937	7.000	.2	71	4.527	6.213	.2	.0195
32	.0199	5.092		.225	72	5.092		.225	.0190
33	.0199	5.658		.25	73	5.658		.25	.0190
34	.0186	6.224		.275	74	6.224		.275	.0180
35	.0180	6.789		.3	75	18.106		.8	.0185
36	.0190	7.356		.325	76	19.238		.85	.0188
37	.0192	7.922		.35	77	19.804		.875	.0170
38	.0190	8.488		.375	78	20.369		.9	.0172
39	.0189	9.053		.4	79	20.935		.925	.0180
40	.0188	9.619	7.000	.425	80	21.501	6.213	.95	.0190

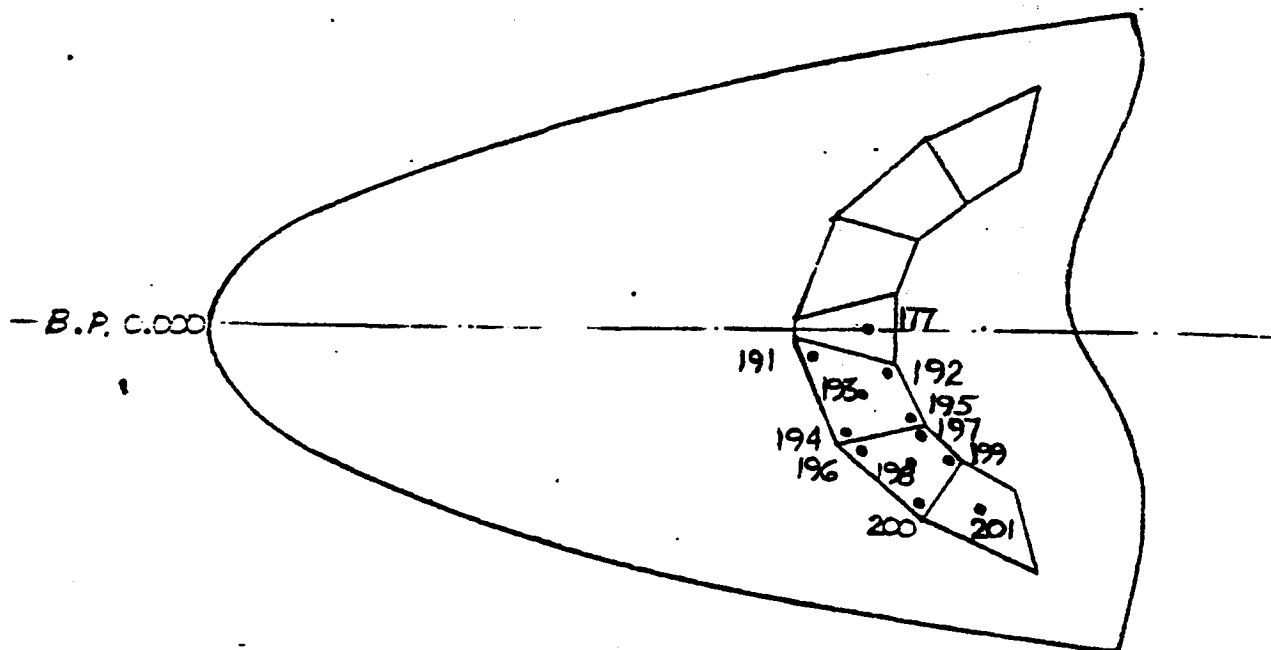
* T/C NOT RECORDED

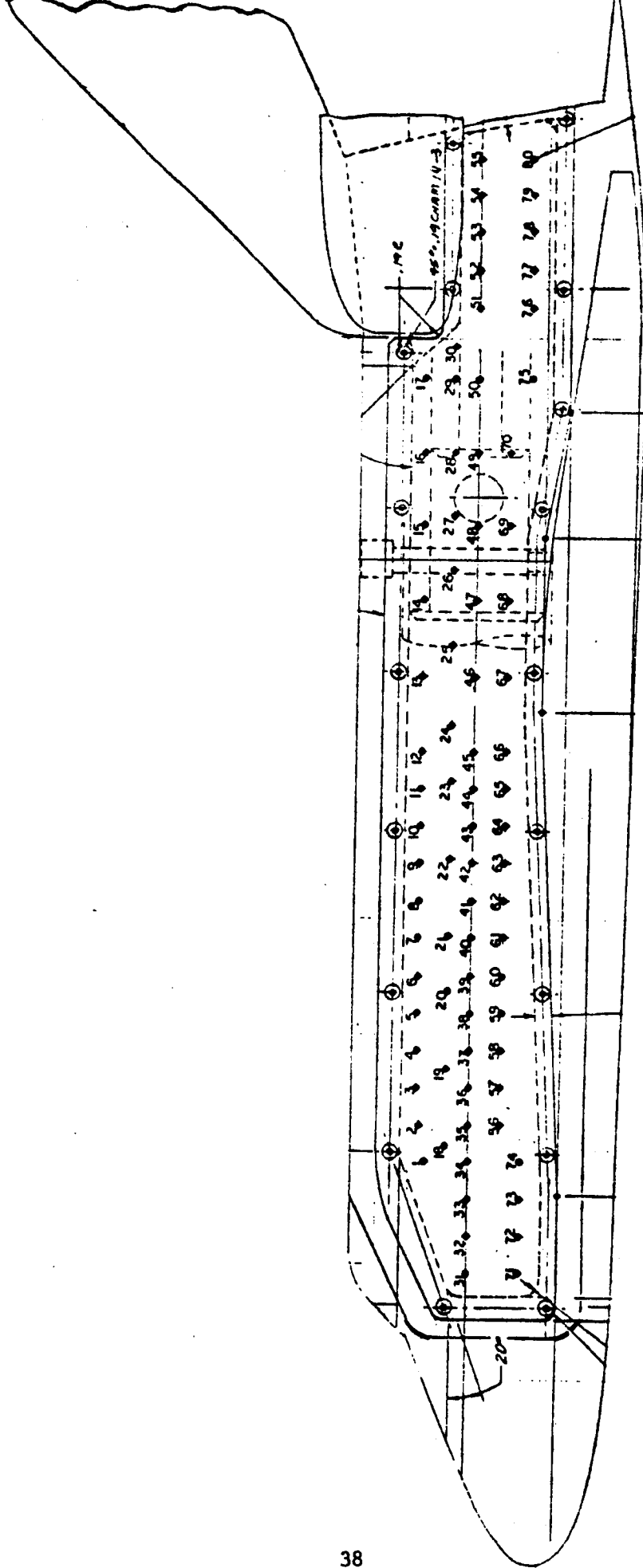
TABLE VI. MODEL 60-C, THERMOCOUPLE LOCATIONS AND SKIN THICKNESS
(AFFDL OMS POD T/C)

T/C No.	INCHES, FULL SCALE XO	INCHES, FULL SCALE YO	INCHES, FULL SCALE ZO	Skin Thickness in.
1	1312.5	103.47	437.62	.039
2	1312.5	105.65	451.57	.025
3	1313.4	99.92	463.35	.041
4	1314.2	90.04	474.41	.043
5	1315.4	81.42	485.17	.028
61	1373.7	112.41	501.33	.029
7	1317.8	56.21	497.18	.027
8	1319.2	42.82	495.98	.031
9	1322.7	113.14	434.29	.023
10	1322.9	113.90	446.10	.033
11	1323.2	115.62	459.73	.029
12	1323.4	110.38	472.01	.036
13	1324.9	101.55	482.44	.031
14	1326.3	92.10	492.89	.024
15	1327.3	80.93	501.43	.026
16	1328.5	68.91	508.10	.029
17	1331.3	54.30	510.38	.029
18	1332.4	41.74	504.13	.028
19	1336.5	114.14	437.47	.027
20	1336.1	120.76	449.66	.034
21	1336.0	124.01	462.41	.026
22	1335.5	119.09	475.11	.028
23	1336.8	110.33	485.84	.030
24	1337.4	99.43	495.69	.029
25	1338.4	88.08	504.61	.031
26	1339.9	76.58	512.79	.030
27	1341.3	64.09	517.49	.026
28	1343.2	50.13	514.51	.030
29	1344.6	38.66	506.42	.029
30	1348.9	111.69	427.05	.015
31	1348.0	119.71	438.95	.023
32	1346.9	126.40	451.59	.029
33	1371.1	137.31	467.72	.037
34	1347.9	123.26	478.95	.029
35	1348.6	114.89	486.55	.031
36	1350.0	104.37	498.45	.031
37	1350.9	93.15	507.16	.032
38	1351.9	81.63	515.29	.031
39	1353.3	68.97	521.19	.029
40	1355.5	55.02	520.43	.033
41	1356.8	42.84	512.69	.025
42	1360.9	115.72	428.93	.016
43	1360.7	124.34	441.15	.023
44	1359.7	130.58	452.74	.032
45	1359.5	133.66	466.33	.033
46	1359.8	128.57	479.54	.031
47	1360.0	119.66	489.71	.029
48	1361.1	109.53	499.35	.026
49	1362.4	98.70	508.42	.027
50	1363.8	86.87	516.86	.029
51	1365.3	74.61	524.20	.030
52	1367.4	60.48	524.50	.034
53	1369.0	48.26	518.62	.030

TABLE VII MODEL 60-0 CANOPY T/C LOCATIONS

CHANNEL	T/C NO	SKIN THICKNESS	B.P. <small>INCHES MODEL SCALE</small>	Z_0 <small>INCHES MODEL SCALE</small>
12	191	.031	.105	7.910
13	192	.031	.224	8.365
14	193	.030	.371	8.137
15	194	.028	.518	7.910
16	177	.040	0.00	TOP ϕ
17	196	.030	.707	7.910
18	197	.030	.609	8.365
19	198	.030	.784	8.137
20	199	.030	.756	8.365
21	200	.029	1.036	7.910
22	201	.029	1.092	8.137





FIGURE(1) MODEL 56-0, THERMOCOUPLE (T/C) LOCATIONS

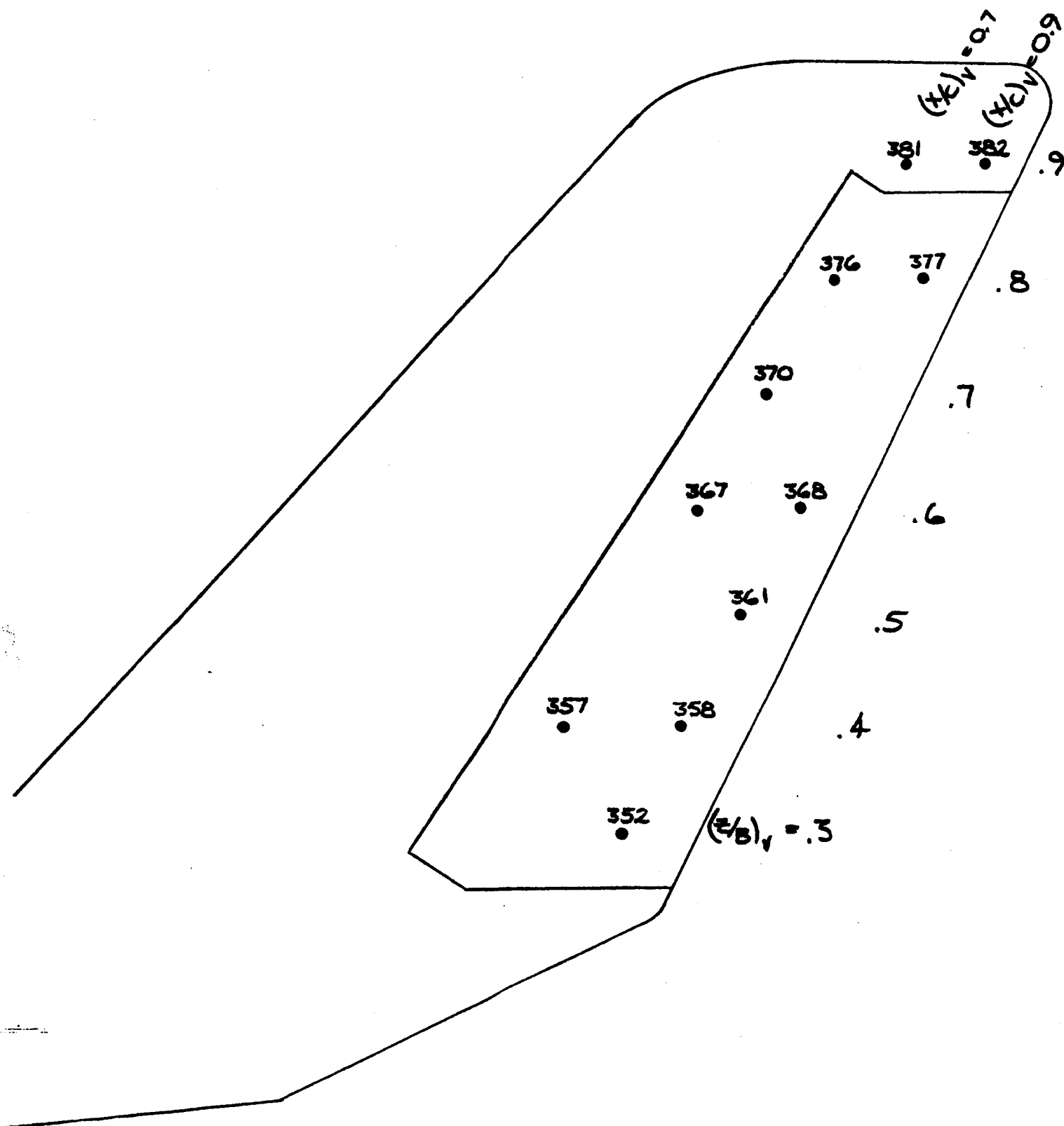
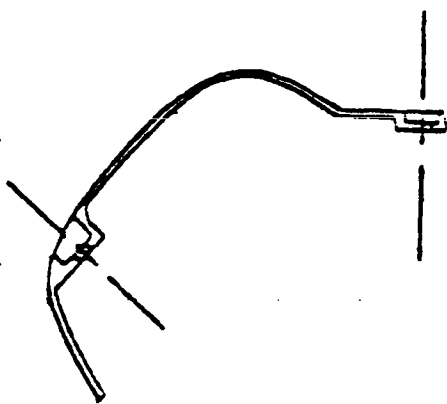


FIGURE 2 MODEL 60-φ VERTICAL TAIL AND SPEEDBRAKE
T/C LOCATIONS

NOTE: SEE TABLE II. MODEL 60-O, THERMOCOUPLE LOCATIONS AND SKIN THICKNESS



SECTION A-A.

NOTE: FOR CLARITY, NOT ALL TC NO. SHOWN.

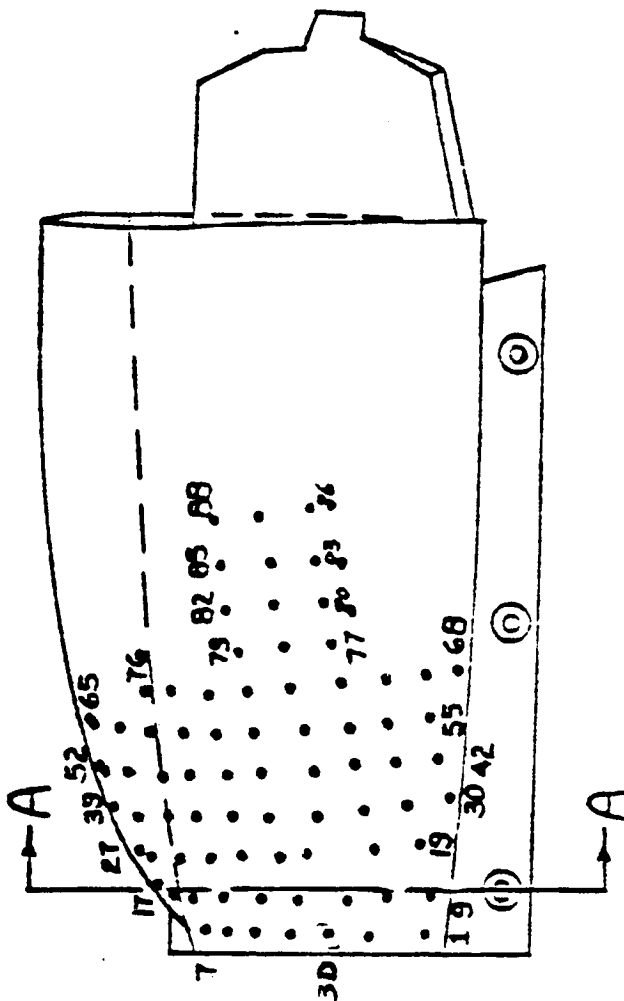
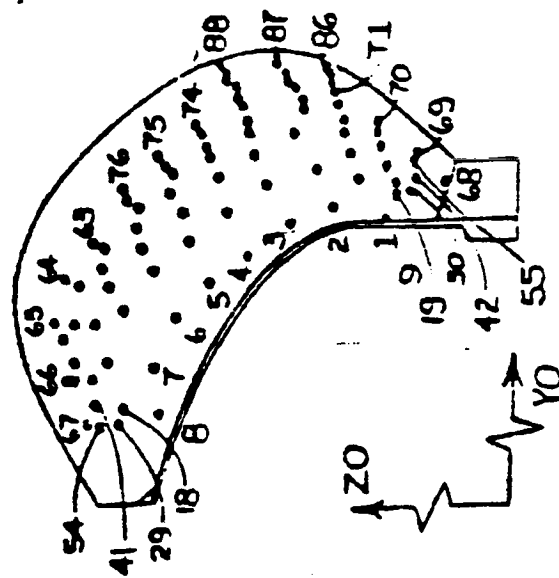
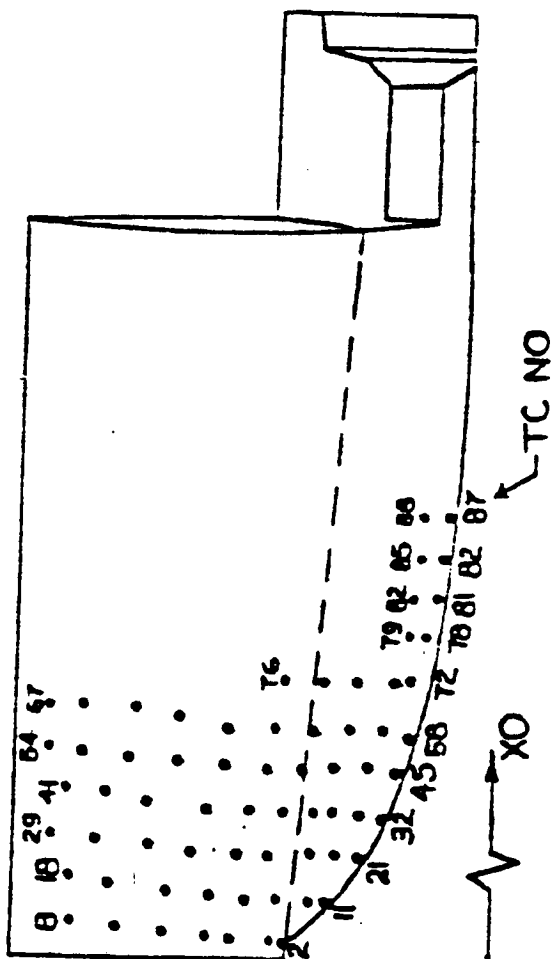


FIGURE (3) MODEL 60-O, ORBITAL MANEUVERING SYSTEM (OMS) FOR THERMOCOUPLE (T/C) LOCATIONS

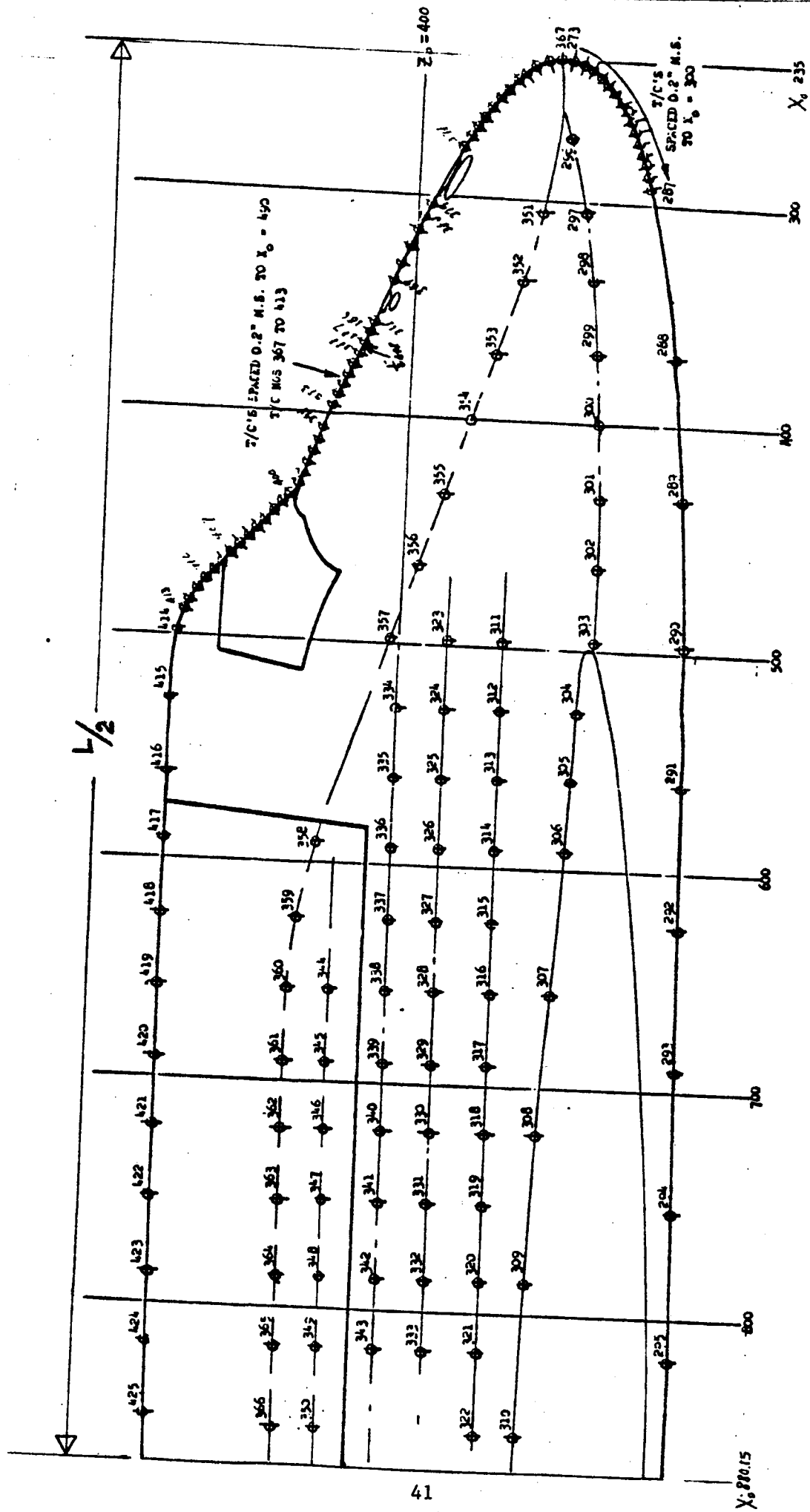


FIGURE 4 MODEL 83-O FUSELAGE T/C LOCATIONS

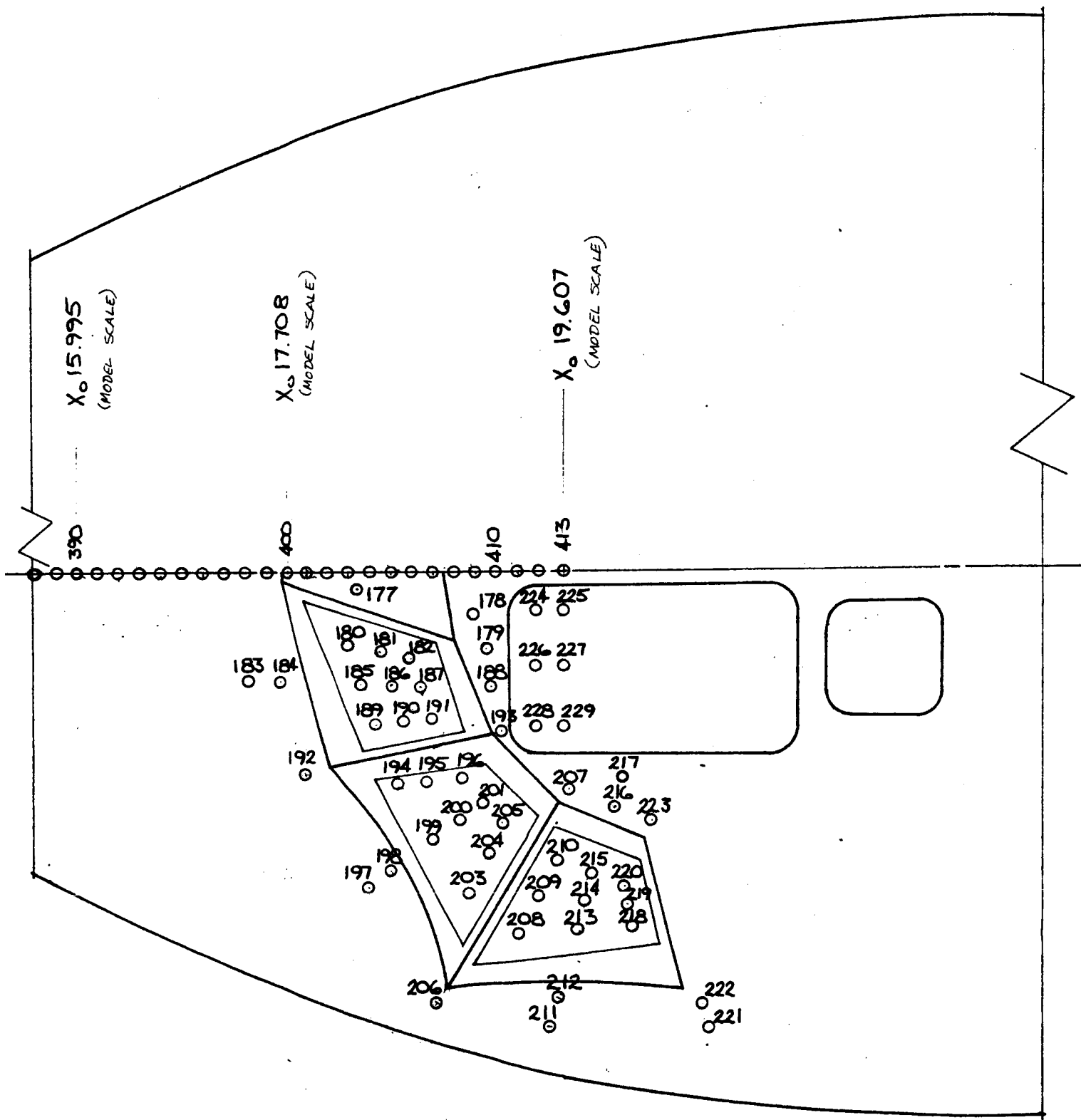


FIGURE (5) MODEL 83-0, CANOPY T/C LOCATIONS

TABULATED SOURCE DATA

<u>Component</u>	<u>Dataset 4th Character</u>	<u>Dataset Number</u>	<u>Pages</u>
60-0 OMS POD	O	1-19	1-98
↓ WINDOWS	C	↓	99-147
↓ VERTICAL TAIL	V	↓	148-196
83-0 FUSELAGE	B	20-22	197-220
↓ CANOPY	C	↓	221-244
↓ ESCAPE HATCH	H	↓	245-256
56-0 FUSELAGE	B	23-24	257-298

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

(RAG001)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
30	3.742	5.280	20.00	.0000	308.9	1323.	323.6	.4162	205.1	.1703-03	3706.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2843										
30	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
30	.83500	437.62	1.0000	.6831-01	.8205-01	.9122-01	54.93	3.752	4028	543.1	.1149-02	.1277-02
30	.83500	451.57	2.0000	.2154	.2590	.2881	54.70	11.78	.4052	546.4	.3625-02	.4032-02
30	.83500	463.35	3.0000	.3220	.3873	.4309	54.58	17.58	.4065	548.1	.5420-02	.6031-02
30	.83500	474.41	4.0000	.1942	.2336	.2599	54.57	10.60	.4066	548.2	.3269-02	.3637-02
30	.83500	485.17	5.0000	.6864-01	.8256-01	.9188-01	54.53	3.743	.4070	548.9	.1155-02	.1286-02
30	.83500	497.18	7.0000	.2815-01	.3384-01	.3765-01	54.69	1.539	.4053	546.6	.4736-03	.5269-03
30	.83500	495.98	8.0000	.3252-01	.3907-01	.4345-01	54.87	1.784	.4034	544.0	.5469-03	.6082-03
30	.84300	434.29	9.0000	.3569-01	.4292-01	.4776-01	54.58	1.948	.4065	548.1	.6007-03	.6685-03
30	.84300	446.10	10.000	.2495	.2999	.3337	54.62	13.63	.4060	547.5	.4198-02	.4671-0
30	.84300	459.73	11.000	.2202	.2650	.2950	54.41	11.98	.4082	550.5	.3708-02	.4128-02
30	.84300	472.01	12.000	.2057	.2476	.2756	54.38	11.19	.4086	550.9	.3465-02	.3857-02
30	.84300	482.44	13.000	.1842	.2216	.2467	54.45	10.03	.4079	550.0	.3102-02	.3452-02
30	.84300	482.89	14.000	.1844	.2219	.2470	54.47	10.05	.4076	549.7	.3105-02	.3456-02
30	.84300	501.43	15.000	.9891-01	.1190	.1324	54.48	5.389	.4075	549.5	.1665-02	.1854-02
30	.84300	508.10	16.000	.5612-01	.6750-01	.7511-01	54.54	3.061	.4069	548.6	.9446-03	.1051-02
30	.84300	510.38	17.000	.4593-01	.5522-01	.6143-01	54.67	2.511	.4055	546.8	.7729-03	.8598-03
30	.84300	504.13	18.000	.3945-01	.4620-01	.5138-01	54.85	2.103	.4036	544.3	.6467-03	.7191-03
30	.85400	437.47	19.000	.1355	.1629	.1812	54.72	7.417	.4050	546.1	.2280-02	.2536-02
30	.85400	449.66	20.000	.1443	.1736	.1932	54.46	7.858	.4077	549.8	.2430-02	.2704-02
30	.85400	462.41	21.000	.1337	.1609	.1791	54.31	7.260	.4092	551.9	.2251-02	.2507-02
30	.85400	475.11	22.000	.1233	.1484	.1652	54.30	6.692	.4094	552.1	.2076-02	.2312-02
30	.85400	485.84	23.000	.8883-01	.1069	.1190	54.37	4.830	.4087	551.1	.1496-02	.1666-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, OMS POD (RAG0011)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
30	.85400	495.69	24.000	.1045	.1258	.1400	54.41	5.687	.4082	550.4	.1760-02	.1959-02
30	.85400	504.61	25.000	.1300	.1564	.1740	54.45	7.076	.4078	549.9	.2188-02	.2436-02
30	.85400	512.79	26.000	.7005-01	.8427-01	.9378-01	54.50	3.818	.4073	549.2	.1179-02	.1312-02
30	.85400	517.49	27.000	.4067-01	.4892-01	.5444-01	54.55	2.219	.4067	548.4	.6846-03	.7618-03
30	.85400	514.51	28.000	.4358-01	.5239-01	.5828-01	54.70	2.384	.4052	546.5	.7333-03	.8157-03
30	.85400	506.42	29.000	.3979-01	.4781-01	.5316-01	54.86	2.183	.4035	544.1	.6692-03	.7441-03
30	.86200	427.05	30.000	.4041-01	.4853-01	.5395-01	54.96	2.221	.4024	542.7	.6793-03	.7552-03
30	.86200	438.95	31.000	.8533-01	.1026	.1142	54.60	4.659	.4063	547.8	.1436-02	.1558-02
30	.86200	451.59	32.000	.1051	.1265	.1408	54.36	5.714	.4088	551.2	.1770-02	.1971-02
30	.86200	478.95	34.000	.7644-01	.9201-01	.1024	54.34	4.154	.4090	551.5	.1288-02	.1434-02
30	.86200	488.55	35.000	.5450-01	.6559-01	.7301-01	54.40	2.955	.4083	550.6	.9178-03	.1022-02
30	.86200	498.45	36.000	.4910-01	.5908-01	.6577-01	54.43	2.673	.4080	550.2	.8268-03	.9204-03
30	.86200	507.16	37.000	.6826-01	.8211-01	.9138-01	54.51	3.721	.4072	549.1	.1149-02	.1279-02
30	.86200	515.29	38.000	.7091-01	.8528-01	.9490-01	54.56	3.869	.4067	548.4	.1194-02	.1328-02
30	.86200	521.19	39.000	.3926-01	.4721-01	.5253-01	54.60	2.144	.4062	547.7	.6608-03	.7352-03
30	.86200	520.43	40.000	.4007-01	.4817-01	.5359-01	54.69	2.192	.4053	546.5	.6743-03	.7501-03
30	.86200	512.69	41.000	.4055-01	.4872-01	.5418-01	54.85	2.224	.4036	544.3	.6820-03	.7584-03
30	.87200	428.93	42.000	.3819-01	.4589-01	.5104-01	54.80	2.093	.4041	544.9	.6423-03	.7144-03
30	.87200	441.15	43.000	.6608-01	.7947-01	.8642-01	54.58	3.607	.4064	548.0	.1112-02	.1238-02
30	.87200	452.74	44.000	.9166-01	.1103	.1228	54.43	4.989	.4080	550.2	.1543-02	.1718-02
30	.87200	466.33	45.000	.9240-01	.1112	.1238	54.37	5.024	.4086	551.0	.1556-02	.1732-02
30	.87200	479.54	46.000	.6901-01	.8306-01	.9246-01	54.38	3.753	.4085	550.9	.1162-02	.1294-02
30	.87200	489.71	47.000	.4090-01	.4921-01	.5478-01	54.44	2.226	.4080	550.1	.6887-03	.7666-03
30	.87200	499.35	48.000	.2730-01	.3283-01	.3654-01	54.51	1.488	.4072	549.1	.4595-03	.5114-03
30	.87200	508.42	49.000	.2956-01	.3555-01	.3956-01	54.56	1.613	.4066	548.3	.4975-03	.5536-03
30	.87200	516.86	50.000	.4651-01	.5593-01	.6223-01	54.60	2.539	.4062	547.8	.7827-03	.8709-03
30	.87200	524.20	51.000	.3663-01	.4403-01	.4899-01	54.67	2.003	.4055	546.8	.6163-03	.6856-03
30	.87200	524.50	52.000	.3312-01	.3981-01	.4428-01	54.74	1.813	.4048	545.8	.5572-03	.6197-03
30	.87200	518.62	53.000	.3147-01	.3779-01	.4202-01	54.98	1.730	.4023	542.4	.5291-03	.5982-03
30	.88100	467.72	58.000	.8298-01	.9987-01	.1112	54.74	4.509	.4090	551.5	.1398-02	.1556-02
30	.88100	501.33	61.000	.1306-01	.1569-01	.1745-01	54.85	.7162	.4036	544.3	.2196-03	.2442-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG001)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
32	3.680	5.280	22.50	.0000	312.1	1346.	329.4	.4199	208.7	.1688-03	3739.	.1750-01
32	.0000	HS SPHERE TM=540 .2861										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.950
32	.83500	437.62	1.0000	.5673-01	.6820-01	.7588-01	55.98	3.176	.4055	556.6	.9602-03	.1068-02
32	.83500	451.57	2.0000	.1835	.2208	.2458	55.69	10.22	.4085	560.8	.3108-02	.3460-02
32	.83500	463.35	3.0000	.2367	.2850	.3174	55.49	13.13	.4105	563.5	.4011-02	.4468-02
32	.83500	474.41	4.0000	.1260	.1517	.1690	55.46	6.987	.4108	563.9	.2135-02	.2378-02
32	.83500	485.17	5.0000	.5572-01	.6712-01	.7478-01	55.41	3.087	.4114	564.7	.9446-03	.1032-02
32	.83500	497.18	7.0000	.5956-01	.7169-01	.7982-01	55.63	3.313	.4091	561.5	.1009-02	.1123-02
32	.83500	495.98	8.0000	.6826-01	.8209-01	.9135-01	55.88	3.814	.4066	558.1	.1156-02	.1286-02
32	.84300	434.29	9.0000	.4651-01	.5601-01	.6238-01	55.50	2.581	.4105	563.4	.7883-03	.8780-03
32	.84300	446.10	10.000	.1797	.2163	.2409	55.58	9.988	.4096	562.2	.3045-02	.3390-02
32	.84300	459.73	11.000	.1900	.2290	.2551	55.32	10.51	.4123	566.0	.3222-02	.3590-02
32	.84300	472.01	12.000	.1802	.2172	.2421	55.24	9.955	.4131	567.1	.3057-02	.3407-02
32	.84300	482.44	13.000	.1604	.1933	.2154	55.30	8.871	.4125	566.2	.2721-02	.3031-02
32	.84300	492.89	14.000	.1271	.1532	.1707	55.34	7.034	.4121	565.7	.2156-02	.2402-02
32	.84300	501.43	15.000	.7252-01	.8738-01	.9735-01	55.37	4.016	.4117	565.2	.1230-02	.1370-02
32	.84300	508.10	16.000	.5651-01	.6326-01	.7046-01	55.44	2.911	.4111	564.3	.8902-03	.9916-03
32	.84300	510.38	17.000	.6100-01	.7343-01	.8176-01	55.62	3.393	.4092	561.6	.1034-02	.1151-02
32	.84300	504.13	18.000	.3915-01	.4709-01	.5240-01	55.85	2.186	.4069	558.5	.6628-03	.7376-03
32	.85400	437.47	19.000	.6595-01	.7935-01	.8832-01	55.75	3.676	.4079	559.9	.1117-02	.1243-02
32	.85400	449.66	20.000	.1365	.1644	.1832	55.40	7.563	.4114	564.7	.2314-02	.2578-02
32	.85400	462.41	21.000	.1232	.1486	.1656	55.22	6.805	.4133	567.4	.2090-02	.2330-02
32	.85400	475.11	22.000	.1060	.1278	.1424	55.17	5.847	.4138	568.0	.1798-02	.2004-02
32	.85400	485.84	23.000	.8315-01	.1002	.1117	55.24	4.593	.4131	567.1	.1410-02	.1572-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OHS POD (RAG001)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
32	.85400	495.69	24.000	.9752-01	.1175	.1310	55.29	5.392	.4126	566.4	.1654-02	.1843-02
32	.85400	504.61	25.000	.9002-01	.1085	.1209	55.34	4.982	.4121	565.6	.1526-02	.1701-02
32	.85400	512.79	26.000	.5453-01	.6569-01	.7317-01	55.43	3.023	.4111	564.4	.9245-03	.1030-02
32	.85400	517.49	27.000	.3910-01	.4709-01	.5244-01	55.52	2.171	.4102	563.1	.6627-03	.7380-03
32	.85400	514.51	28.000	.4054-01	.4879-01	.5431-01	55.69	2.258	.4085	560.7	.6867-03	.7645-03
32	.85400	506.42	29.000	.3325-01	.3998-01	.4449-01	55.89	1.858	.4065	557.9	.5628-03	.6263-03
32	.86200	427.05	30.000	.2311-01	.2777-01	.3089-01	56.08	1.296	.4045	555.3	.3910-03	.4349-03
32	.86200	438.95	31.000	.5323-01	.6409-01	.7137-01	55.58	2.959	.4096	562.2	.9020-03	.1004-02
32	.86200	451.59	32.000	.1175	.1416	.1578	55.26	6.452	.4129	566.8	.1993-02	.2221-02
32	.86200	478.95	34.000	.6436-01	.7759-01	.8647-01	55.22	3.554	.4133	567.4	.1092-02	.1217-02
32	.86200	488.55	35.000	.5051-01	.6088-01	.6784-01	55.27	2.792	.4128	566.6	.8567-03	.9547-03
32	.86200	498.45	36.000	.5041-01	.6075-01	.6770-01	55.30	2.788	.4125	566.2	.8549-03	.9526-03
32	.86200	507.16	37.000	.6051-01	.7290-01	.8121-01	55.40	3.352	.4115	564.8	.1026-02	.1143-02
32	.86200	515.29	38.000	.4870-01	.5865-01	.6532-01	55.48	2.702	.4106	563.6	.8254-03	.9193-03
32	.86200	521.19	39.000	.3253-01	.3917-01	.4362-01	55.56	1.807	.4098	562.5	.5513-03	.6139-03
32	.86200	520.43	40.000	.3376-01	.4063-01	.4523-01	55.68	1.880	.4086	560.9	.5719-03	.6367-03
32	.86200	512.69	41.000	.3212-01	.3863-01	.4299-01	55.86	1.794	.4067	558.3	.5438-03	.6052-03
32	.87200	428.93	42.000	.1950-01	.2346-01	.2610-01	55.88	1.090	.4065	558.0	.3302-03	.3674-03
32	.87200	441.15	43.000	.5145-01	.6195-01	.6899-01	55.56	2.859	.4098	562.5	.8719-03	.9710-03
32	.87200	452.74	44.000	.1073	.1293	.1440	55.35	5.938	.4120	565.6	.1819-02	.2027-02
32	.87200	466.33	45.000	.8508-01	.1025	.1143	55.25	4.701	.4130	566.9	.1443-02	.1608-02
32	.87200	479.54	46.000	.5681-01	.6847-01	.7630-01	55.25	3.138	.4130	566.9	.9635-03	.1074-02
32	.87200	489.71	47.000	.3490-01	.4205-01	.4686-01	55.30	1.930	.4125	566.2	.5918-03	.6594-03
32	.87200	499.35	48.000	.2604-01	.3137-01	.3495-01	55.38	1.442	.4117	565.1	.4415-03	.4918-03
32	.8720J	508.42	49.000	.2669-01	.3239-01	.3608-01	55.45	1.491	.4109	564.0	.4559-03	.5078-03
32	.87200	516.86	50.000	.3578-01	.4308-01	.4798-01	55.52	1.986	.4102	563.1	.6063-03	.6752-03
32	.87200	524.20	51.000	.2608-01	.3139-01	.3495-01	55.62	1.451	.4092	561.7	.4419-03	.4920-03
32	.87200	524.50	52.000	.2439-01	.2935-01	.3267-01	55.73	1.359	.4081	560.1	.4131-03	.4599-03
32	.87200	518.62	53.000	.2170-01	.2608-01	.2900-01	56.05	1.216	.4047	555.6	.3671-03	.4083-03
32	.88100	467.72	58.000	.7226-01	.8734-01	.9751-01	54.49	3.937	.4208	577.6	.1228-02	.1372-02
32	.88100	501.33	61.000	.1175-01	.1414-01	.1573-01	55.82	.6561	.4071	558.9	.1990-03	.2215-03

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(RAG001)

OMS POD (60-0)

OH110, MODEL 50-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
34	3.805	5.280	25.00	.0000	303.2	1294.	316.1	.4092	200.3	.1714-03	3663.	.1750-01
34		HS SPHERE TW=540 .2812										
34												

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
34	.83500	437.62	1.0000	.4834-01	.5853-01	.6543-01	51.01	2.466	.4256	560.6	.8142-03	.9101-03
34	.83500	451.57	2.0000	.1929	.2338	.2615	50.80	9.801	.4279	563.6	.3251-02	.3637-02
34	.83500	463.35	3.0000	.2376	.2881	.3223	50.68	12.04	.4292	565.4	.4006-02	.4482-02
34	.83500	474.41	4.0000	.1276	.1547	.1731	50.68	6.467	.4292	565.3	.2152-02	.2407-02
34	.83500	485.17	5.0000	.6230-01	.7554-01	.8453-01	50.65	3.155	.4296	565.8	.1051-02	.1175-02
34	.83500	497.18	7.0000	.1012	.1227	.1372	50.80	5.142	.4279	563.7	.1706-02	.1908-02
34	.83500	495.98	8.0000	.9111-01	.1103	.1234	50.95	4.643	.4262	561.4	.1535-02	.1716-02
34	.84300	434.29	9.0000	.7373-01	.8938-01	.1000+00	50.69	3.737	.4290	565.1	.1243-02	.1391-02
34	.84300	446.10	10.000	.1539	.1866	.2087	50.71	7.804	.4288	564.9	.2594-02	.2903-02
34	.84300	459.73	11.000	.1979	.2400	.2686	50.55	10.00	.4306	567.3	.3338-02	.3736-02
34	.84300	472.01	12.000	.1642	.1992	.2229	50.52	8.293	.4310	567.7	.2770-02	.3100-02
34	.84300	482.44	13.000	.1305	.1583	.1771	50.57	6.599	.4304	567.0	.2201-02	.2463-02
34	.84300	492.89	14.000	.1071	.1299	.1454	50.59	5.419	.4302	566.7	.1807-02	.2022-02
34	.84300	501.43	15.000	.6908-01	.8377-01	.9374-01	50.63	3.497	.4298	566.1	.1165-02	.1304-02
34	.84300	508.10	16.000	.5855-01	.7099-01	.7942-01	50.68	2.968	.4291	565.3	.9872-03	.1105-02
34	.84300	510.38	17.000	.7320-01	.8870-01	.9920-01	50.80	3.719	.4278	563.6	.1234-02	.1380-02
34	.84300	504.13	18.000	.4739-01	.5739-01	.6416-01	50.94	2.414	.4264	561.6	.7982-03	.8924-03
34	.85400	437.47	19.000	.5937-01	.7193-01	.8043-01	50.85	3.019	.4273	562.9	.1000-02	.1119-02
34	.85400	449.66	20.000	.1334	.1617	.1810	50.62	6.752	.4298	566.2	.2249-02	.2517-02
34	.85400	462.41	21.000	.1474	.1788	.2001	50.50	7.441	.4312	568.0	.2486-02	.2783-02
34	.85400	475.11	22.000	.1068	.1296	.1451	50.47	5.392	.4314	568.3	.1803-02	.2018-02
34	.85400	485.84	23.000	.7264-01	.8812-01	.9863-01	50.53	3.671	.4308	567.5	.1225-02	.1371-02

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD (IRAG001)

RUN NUMBER	XB/LB	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
34	.85400	495.69	24.000	.8073-01	.9791-01	.1096	50.58	4.083	.4303	566.8	.1362-02	.1524-02
34	.85400	504.61	25.000	.7494-01	.9087-01	.1017	50.63	3.794	.4298	566.1	.1284-02	.1414-02
34	.85400	512.79	26.000	.4710-01	.5711-01	.6390-01	50.68	2.387	.4292	565.4	.7942-03	.8866-03
34	.85400	517.49	27.000	.3411-01	.4134-01	.4625-01	50.73	1.730	.4286	564.6	.5750-03	.6432-03
34	.85400	514.51	28.000	.4070-01	.4931-01	.5515-01	50.85	2.070	.4273	562.9	.6859-03	.7670-03
34	.85400	506.42	29.000	.3574-01	.4328-01	.4838-01	50.99	1.822	.4259	561.0	.6020-03	.6729-03
34	.86200	427.05	30.000	.2398-01	.2903-01	.3244-01	51.07	1.225	.4249	559.7	.4038-03	.4512-03
34	.86200	438.95	31.000	.4931-01	.5977-01	.6685-01	50.75	2.503	.4284	564.3	.8312-03	.9298-03
34	.86200	451.99	32.000	.1330	.1613	.1805	50.53	6.719	.4309	567.5	.2243-02	.2510-02
34	.86200	478.95	34.000	.6473-01	.7853-01	.8789-01	50.52	3.270	.4309	567.7	.1092-02	.1222-02
34	.86200	488.55	35.000	.4620-01	.5604-01	.6272-01	50.56	2.336	.4305	567.1	.7793-03	.8722-03
34	.86200	498.45	36.000	.4402-01	.5339-01	.5975-01	50.60	2.228	.4300	566.5	.7425-03	.8309-03
34	.86200	507.16	37.000	.5191-01	.6294-01	.7042-01	50.66	2.630	.4294	565.6	.8753-03	.9793-03
34	.86200	515.29	38.000	.4070-01	.4934-01	.5520-01	50.72	2.064	.4288	564.8	.6862-03	.7676-03
34	.86200	521.19	39.000	.2922-01	.3542-01	.3962-01	50.77	1.484	.4282	564.1	.4926-03	.5510-03
34	.86200	520.43	40.000	.2970-01	.3598-01	.4024-01	50.85	1.510	.4274	562.9	.5005-03	.5597-03
34	.86200	512.69	41.000	.3282-01	.3974-01	.4443-01	50.97	1.673	.4260	561.2	.5528-03	.6179-03
34	.87200	428.93	42.000	.2237-01	.2709-01	.3029-01	50.94	1.140	.4263	561.6	.3768-03	.4213-03
34	.87200	441.15	43.000	.4859-01	.5890-01	.6589-01	50.73	2.465	.4287	564.6	.8191-03	.9163-03
34	.87200	452.74	44.000	.1167	.1415	.1584	50.58	5.903	.4302	566.7	.1968-02	.2203-02
34	.87200	466.33	45.000	.9653-01	.1172	.1312	50.53	4.883	.4308	567.5	.1630-02	.1824-02
34	.87200	479.54	46.000	.5981-01	.7255-01	.8121-01	50.54	3.022	.4308	567.4	.1009-02	.1129-02
34	.87200	489.71	47.000	.3451-01	.4185-01	.4684-01	50.58	1.745	.4303	566.8	.5820-03	.6513-03
34	.87200	499.35	48.000	.2450-01	.2971-01	.3324-01	50.64	1.241	.4296	565.9	.4131-03	.4622-03
34	.87200	508.42	49.000	.2516-01	.3049-01	.3412-01	50.71	1.276	.4288	564.9	.4241-03	.4744-03
34	.87200	516.86	50.000	.3147-01	.3814-01	.4266-01	50.75	1.597	.4284	564.3	.5304-03	.5933-03
34	.87200	524.20	51.000	.2402-01	.2910-01	.3255-01	50.81	1.220	.4278	563.5	.4047-03	.4527-03
34	.87200	524.50	52.000	.2328-01	.2821-01	.3154-01	50.88	1.185	.4270	562.5	.3923-03	.4387-03
34	.87200	518.62	53.000	.2108-01	.2552-01	.2852-01	51.09	1.077	.4248	559.5	.3550-03	.3967-03
34	.88100	467.72	58.000	.7461-01	.9078-01	.1018	49.80	3.715	.4388	578.0	.1262-02	.1415-02
34	.88100	501.33	61.000	.9301-02	.1127-01	.1260-01	50.90	.4734	.4268	562.2	.1567-03	.1752-03

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OH110, MODEL 60-0, OMS POD

(RAG001)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
36	3.930	5.280	27.50	.0000	312.5	1293.	315.7	.4218	200.1	.1769-03	3660.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2855										
36	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
36	.83500	437.62	1.0000	.2940-01	.3551-01	.3963-01	52.37	1.540	.4185	550.6	.4864-03	.5427-03
36	.83500	451.57	2.0000	.1182	.1429	.1595	52.16	6.166	.4208	553.6	.1957-02	.2185-02
36	.83500	463.35	3.0000	.2472	.2989	.3338	52.05	12.86	.4220	555.2	.4093-02	.4571-02
36	.83500	474.41	4.0000	.1574	.1903	.2126	52.03	8.190	.4222	555.4	.2606-02	.2911-02
36	.83500	485.17	5.0000	.6591-01	.7971-01	.8903-01	52.01	3.428	.4224	555.8	.1091-02	.1219-02
36	.83500	497.18	7.0000	.7322-01	.8850-01	.9881-01	52.17	3.820	.4207	553.5	.1212-02	.1353-02
36	.83500	495.98	8.0000	.7816-01	.9447-01	.1055	52.17	4.078	.4207	553.5	.1294-02	.1444-02
36	.84300	434.29	9.0000	.5304-01	.6414-01	.7163-01	52.06	2.762	.4219	555.0	.8783-03	.9808-03
36	.84300	446.10	10.000	.7010-01	.8475-01	.9465-01	52.08	3.651	.4217	554.7	.1161-02	.1296-02
36	.84300	459.73	11.000	.1356	.1641	.1833	51.91	7.040	.4235	557.1	.2247-02	.2510-02
36	.84300	472.01	12.000	.1968	.2381	.2660	51.88	10.21	.4238	557.6	.3260-02	.3642-02
36	.84300	482.44	13.000	.1211	.1466	.1637	51.92	6.290	.4233	556.9	.2007-02	.2242-02
36	.84300	492.89	14.000	.9695-01	.1173	.1310	51.95	5.036	.4231	556.6	.1606-02	.1794-02
36	.84300	501.43	15.000	.6982-01	.8443-01	.9430-01	52.03	3.633	.4222	555.4	.1158-02	.1291-02
36	.84300	508.10	16.000	.6215-01	.7517-01	.8396-01	52.02	3.233	.4223	555.6	.1029-02	.1150-02
36	.84300	510.38	17.000	.7834-01	.9469-01	.1057	52.17	4.087	.4207	553.5	.1297-02	.1448-02
36	.84300	504.13	18.000	.6350-01	.7670-01	.8560-01	52.33	3.323	.4190	551.3	.1050-02	.1172-02
36	.84300	437.47	19.000	.2523-01	.3049-01	.3404-01	52.20	1.317	.4204	553.1	.4175-03	.4661-03
36	.85400	449.66	20.000	.4417-01	.5343-01	.5969-01	51.96	2.295	.4229	556.4	.7316-03	.8173-03
36	.85400	462.41	21.000	.1029	.1245	.1391	51.83	5.332	.4244	558.3	.1705-02	.1905-02
36	.85400	475.11	22.000	.1502	.1818	.2032	51.81	7.784	.4245	558.5	.2489-02	.2782-02
36	.85400	485.84	23.000	.7873-01	.9527-01	.1064	51.88	4.084	.4239	557.6	.1304-02	.1457-02

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OH110, MODEL 60-O, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
36	.85400	495.69	24.000	.6565-01	.7942-01	.8873-01	51.93	3.409	.4233	556.9	.1087-02	.1215-02
36	.85400	504.61	25.000	.6415-01	.7760-01	.8668-01	51.97	3.334	.4228	556.3	.1062-02	.1147-02
36	.85400	512.79	26.000	.4501-01	.5443-01	.6079-01	52.02	2.342	.4223	555.5	.7453-03	.8324-03
36	.85400	517.49	27.000	.3570-01	.4316-01	.4820-01	52.09	1.860	.4215	554.6	.5910-03	.6600-03
36	.85400	514.51	28.000	.5029-01	.6077-01	.6784-01	52.22	2.626	.4201	552.7	.8322-03	.9290-03
36	.85400	506.42	29.000	.5261-01	.6354-01	.7090-01	52.36	2.754	.4187	550.8	.8702-03	.9710-03
36	.86200	427.05	30.000	.8561-02	.1034-01	.1153-01	52.42	.4487	.4180	550.0	.1416-03	.1580-03
36	.86200	438.95	31.000	.1555-01	.1880-01	.2099-01	52.09	.8099	.4216	554.6	.2574-03	.2874-03
36	.86200	451.59	32.000	.4994-01	.6043-01	.6752-01	51.87	2.590	.4239	557.7	.8273-03	.9244-03
36	.86200	478.95	34.000	.9036-01	.1093	.1222	51.86	4.686	.4240	557.8	.1497-02	.1673-02
36	.86200	488.55	35.000	.5539-01	.6702-01	.7487-01	51.91	2.875	.4235	557.1	.9176-03	.1025-02
36	.86200	498.45	36.000	.3985-01	.4820-01	.5385-01	51.94	2.070	.4232	556.8	.6600-03	.7373-03
36	.86200	507.16	37.000	.4042-01	.4888-01	.5459-01	52.02	2.103	.4223	555.5	.6693-03	.7475-03
36	.86200	515.29	38.000	.3436-01	.4155-01	.4640-01	52.08	1.790	.4217	554.7	.5689-03	.6553-03
36	.86200	521.19	39.000	.2787-01	.3369-01	.3762-01	52.14	1.453	.4211	553.9	.4614-03	.5152-03
36	.86200	520.43	40.000	.3407-01	.4117-01	.4595-01	52.22	1.779	.4201	552.7	.5637-03	.6293-03
36	.86200	512.69	41.000	.4184-01	.5054-01	.5639-01	52.35	2.190	.4188	550.9	.6321-03	.7724-03
36	.86200	428.93	42.000	.7463-02	.9016-02	.1006-01	52.29	.3902	.4195	551.8	.1235-03	.1378-03
36	.87200	441.15	43.000	.1326-01	.1604-01	.1791-01	52.07	.6907	.4218	554.9	.2196-03	.2452-03
36	.87200	452.74	44.000	.4540-01	.5492-01	.6136-01	51.93	2.358	.4233	556.8	.7520-02	.8401-03
36	.87200	466.33	45.000	.9209-01	.1114	.1245	51.90	4.780	.4236	557.3	.1526-02	.1704-02
36	.87200	479.54	46.000	.8079-01	.9776-01	.1092	51.89	4.193	.4237	557.4	.1338-02	.1495-02
36	.87200	489.71	47.000	.4224-01	.5110-01	.5708-01	51.94	2.194	.4232	556.7	.6996-03	.7816-03
36	.87200	499.35	48.000	.2607-01	.3152-01	.3521-01	52.01	1.356	.4224	555.8	.4317-03	.4821-03
36	.87200	508.42	49.000	.2124-01	.2568-01	.2868-01	52.07	1.106	.4218	554.9	.3516-03	.3927-03
36	.87200	516.86	50.000	.2372-01	.2868-01	.3203-01	52.11	1.236	.4213	554.3	.3927-03	.4385-03
36	.87200	524.20	51.000	.2103-01	.2541-01	.2837-01	52.18	1.097	.4206	553.3	.3480-03	.3885-03
36	.87200	524.50	52.000	.2286-01	.2762-01	.3083-01	52.25	1.194	.4198	552.3	.3782-03	.4222-03
36	.87200	518.62	53.000	.1825-01	.2204-01	.2459-01	52.47	.9577	.4175	549.3	.3018-03	.3367-03
36	.88100	467.72	58.000	.9430-01	.1145	.1281	51.13	4.822	.4319	568.2	.1566-02	.1754-02
36	.88100	501.33	61.000	.1125-01	.1359-01	.1517-01	52.35	.5890	.4188	550.9	.1861-03	.2077-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG001)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
38	3.803	5.280	30.00	.0000	308.5	1309.	319.8	.4160	202.7	.1722-03	3685.	.1750-01
38	.0000	HS SPHERE TW=540 .2839										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
38	.83500	437.62	1.0000	.1374-01	.1662-01	.1856-01	52.32	.7187	.4232	564.0	.2309-03	.2579-03
38	.83500	451.57	2.0000	.2467-01	.2987-01	.3339-01	52.12	1.286	.4253	566.9	.4149-03	.4637-03
38	.83500	463.35	3.0000	.1035	.1253	.1401	52.00	5.381	.4266	568.6	.1741-02	.1946-02
38	.83500	474.41	4.0000	.1518	.1838	.2056	52.00	7.893	.4266	568.6	.2554-02	.2855-02
38	.83500	485.17	5.0000	.1040	.1260	.1409	51.96	5.403	.4270	569.1	.1750-02	.1956-02
38	.83500	497.18	7.0000	.4612-01	.5583-01	.6241-01	52.12	2.404	.4253	566.9	.7755-03	.8668-03
38	.83500	495.98	8.0000	.7263-01	.8794-01	.9829-01	52.12	3.786	.4253	566.9	.1221-02	.1365-02
38	.84300	434.29	9.0000	.5896-01	.7140-01	.7983-01	52.03	3.067	.4263	568.2	.9918-03	.1109-02
38	.84300	446.10	10.000	.2907-01	.3520-01	.3935-01	52.05	1.513	.4261	567.9	.4883-03	.5466-03
38	.84300	459.73	11.000	.4678-01	.5669-01	.6340-01	51.87	2.426	.4280	570.4	.7873-03	.8806-03
38	.84300	472.01	12.000	.8108-01	.9826-01	.1099	51.84	4.203	.4283	570.8	.1365-02	.1526-02
38	.84300	482.44	13.000	.1173	.1421	.1590	51.89	6.087	.4277	570.1	.1974-02	.2208-02
38	.84300	492.89	14.000	.1183	.1434	.1604	51.91	6.144	.4275	569.9	.1992-02	.2227-02
38	.84300	501.43	15.000	.9082-01	.1100	.1230	51.99	4.722	.4266	568.7	.1528-02	.1708-02
38	.84300	508.10	16.000	.6144-01	.7442-01	.8322-01	51.99	3.194	.4253	568.8	.1034-02	.1156-02
38	.84300	510.38	17.000	.7054-01	.8540-01	.9545-01	52.12	3.677	.4236	566.9	.1186-02	.1326-02
38	.84300	504.13	18.000	.7394-01	.8946-01	.9995-01	52.28	3.865	.4247	564.7	.1243-02	.1388-02
38	.85400	437.47	19.000	.1405-01	.1700-01	.1900-01	52.18	.7330	.4271	566.1	.2362-03	.2640-03
38	.85400	449.66	20.000	.3499-01	.4239-01	.4740-01	51.95	1.818	.4284	569.3	.5887-03	.6583-03
38	.85400	462.41	21.000	.5837-01	.7074-01	.7913-01	51.83	3.025	.4287	571.1	.9825-03	.1099-02
38	.85400	475.11	22.000	.7184-01	.8708-01	.9741-01	51.81	3.722	.4281	571.4	.1209-02	.1353-02
38	.85400	485.84	23.000	.9100-01	.1103	.1234	51.86	4.719	.4281	570.7	.1532-02	.1713-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD (RAG001)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
38	.85400	495.69	24.000	.8636-01	.1046	.1170	51.91	4.483	.4275	569.9	.1453-02	.1625-02
38	.85400	504.61	25.000	.6787-01	.8222-01	.9194-01	51.95	3.526	.4271	569.3	.1142-02	.1277-02
38	.85400	512.79	26.000	.4681-01	.5670-01	.6339-01	52.00	2.734	.4266	568.6	.7875-03	.8805-03
38	.85400	517.49	27.000	.3744-01	.4533-01	.5068-01	52.07	1.949	.4259	567.7	.6297-03	.7039-03
38	.85400	514.51	28.000	.5843-01	.7072-01	.7903-01	52.19	3.049	.4246	565.9	.9823-03	.1098-02
38	.85400	506.42	29.000	.6432-01	.7781-01	.8692-01	52.31	3.365	.4233	564.2	.1081-02	.1208-02
38	.86200	427.05	30.000	.5411-02	.6545-02	.7310-02	52.38	.2835	.4225	563.1	.9092-04	.1016-03
38	.86200	438.95	31.000	.1424-01	.1724-01	.1927-01	52.08	.7414	.4258	567.5	.2395-03	.2677-03
38	.86200	451.59	32.000	.4625-01	.5605-01	.6269-01	51.87	2.399	.4280	570.5	.7784-03	.8706-03
38	.86200	478.95	34.000	.6357-01	.7704-01	.8617-01	51.85	3.296	.4281	570.7	.1070-02	.1197-02
38	.86200	488.55	35.000	.6777-01	.8212-01	.9184-01	51.89	3.517	.4277	570.1	.1140-02	.1276-02
38	.86200	498.45	36.000	.5875-01	.7118-01	.7960-01	51.92	3.050	.4274	569.7	.9886-03	.1106-02
38	.86200	507.16	37.000	.4365-01	.5287-01	.5912-01	51.99	2.269	.4267	568.7	.7343-03	.8211-03
38	.86200	515.29	38.000	.3190-01	.3863-01	.4319-01	52.05	1.661	.4260	567.9	.5366-03	.5999-03
38	.86200	521.19	39.000	.2684-01	.3250-01	.3632-01	52.11	1.399	.4254	567.0	.4514-03	.5045-03
38	.86200	520.43	40.000	.4016-01	.4861-01	.5432-01	52.19	2.096	.4246	565.9	.6752-03	.7545-03
38	.86200	512.69	41.000	.4949-01	.5987-01	.6689-01	52.30	2.589	.4233	564.3	.8318-03	.9292-03
38	.87200	428.93	42.000	.6793-02	.8219-02	.9183-02	52.27	.3550	.4237	564.8	.1142-03	.1276-03
38	.87200	441.15	43.000	.1460-01	.1767-01	.1976-01	52.07	.7599	.4259	567.7	.2455-03	.2744-03
38	.87200	452.74	44.000	.4482-01	.5430-01	.6073-01	51.93	2.327	.4274	569.7	.7542-03	.8434-03
38	.87200	466.33	45.000	.8477-01	.1027	.1149	51.87	4.398	.4279	570.4	.1427-02	.1596-02
38	.87200	479.54	46.000	.6242-01	.7565-01	.8461-01	51.88	3.238	.4279	570.3	.1051-02	.1175-02
38	.87200	489.71	47.000	.4728-01	.5729-01	.6407-01	51.92	2.455	.4274	569.7	.7956-03	.8898-03
38	.87200	499.35	48.000	.3959-01	.4795-01	.5362-01	51.97	2.057	.4269	569.0	.6660-03	.7447-03
38	.87200	508.42	49.000	.2750-01	.3330-01	.3723-01	52.05	1.431	.4261	567.9	.4626-03	.5171-03
38	.87200	516.86	50.000	.2187-01	.2648-01	.2960-01	52.08	1.139	.4257	567.4	.3678-03	.4112-03
38	.87200	524.20	51.000	.1887-01	.2285-01	.2553-01	52.14	.9840	.4251	566.6	.3173-03	.3547-03
38	.87200	524.50	52.000	.2606-01	.3153-01	.3524-01	52.21	1.360	.4243	565.6	.4380-03	.4895-03
38	.87200	518.62	53.000	.1809-01	.2187-01	.2443-01	52.41	.9479	.4222	562.7	.3038-03	.3394-03
38	.88100	467.72	58.000	.9119-01	.1108	.1242	51.14	4.664	.4357	580.8	.1539-02	.1724-02
38	.88100	501.33	61.000	.1330-01	.1609-01	.1798-01	52.31	.6957	.4233	564.2	.2235-03	.2497-03

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(RAG0011)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
40	3.848	5.280	32.50	.0000	308.5	1299.	317.3	.4161	201.1	.1736-03	3670.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
40	.0000	.2837										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
40	.83500	437.62	1.0000	.7175-02	.8684-02	.9704-02	51.77	.3715	.4244	561.2	.1201-03	.1342-03
40	.83500	451.57	2.0000	.5158-02	.6249-02	.6986-02	51.55	.2659	.4268	564.3	.8637-04	.9657-04
40	.83500	463.35	3.0000	.2793-01	.3386-01	.3787-01	51.38	1.435	.4286	566.8	.4680-03	.5235-03
40	.83500	474.41	4.0000	.5570-01	.6751-01	.7552-01	51.40	2.863	.4284	566.5	.9331-03	.1044-02
40	.83500	485.17	5.0000	.8811-01	.1068	.1195	51.36	4.525	.4288	567.1	.1476-02	.1652-02
40	.83500	497.18	7.0000	.8161-01	.9887-01	.1106	51.53	4.205	.4270	564.6	.1367-02	.1528-02
40	.83500	495.98	8.0000	.7414-01	.8981-01	.1004	51.55	3.822	.4267	564.3	.1241-02	.1388-02
40	.84300	434.29	9.0000	.9409-01	.1140	.1276	51.41	4.838	.4277	566.2	.1576-02	.1763-02
40	.84300	446.10	10.000	.1097-01	.1330-01	.1487-01	51.46	.5647	.4299	568.5	.1838-03	.2056-03
40	.84300	459.73	11.000	.2263-01	.2744-01	.3071-01	51.26	1.160	.4302	568.9	.3793-03	.4244-03
40	.84300	472.01	12.000	.3874-01	.4698-01	.5258-01	51.23	1.984	.4299	568.5	.6493-03	.7267-03
40	.84300	482.44	13.000	.3564-01	.4322-01	.4837-01	51.26	1.827	.4296	568.1	.5974-03	.6685-03
40	.84300	492.89	14.000	.4539-01	.5504-01	.6158-01	51.29	2.328	.4286	568.8	.7607-03	.8511-03
40	.84300	501.43	15.000	.7460-01	.9043-01	.1012	51.37	3.833	.4287	566.8	.1250-02	.1398-02
40	.84300	508.10	16.000	.9165-01	.1111	.1243	51.37	4.708	.4271	566.8	.1536-02	.1718-02
40	.84300	510.38	17.000	.8997-01	.1090	.1219	51.52	4.635	.4252	562.3	.1507-02	.1685-02
40	.84300	504.13	18.000	.6456-01	.7816-01	.8736-01	51.69	3.337	.4259	563.2	.1081-02	.1208-02
40	.85400	437.47	19.000	.5528-02	.6694-02	.7483-02	51.62	.2854	.4287	566.9	.9253-04	.1034-03
40	.85400	449.66	20.000	.1709-01	.2072-01	.2317-01	51.37	.8778	.4302	568.9	.2863-03	.3203-03
40	.85400	462.41	21.000	.3487-01	.4229-01	.4736-01	51.23	1.786	.4306	569.4	.5844-03	.6540-03
40	.85400	475.11	22.000	.4955-01	.6011-01	.6727-01	51.19	2.537	.4301	568.8	.8307-03	.9298-03
40	.85400	485.84	23.000	.3622-01	.4393-01	.4916-01	51.24	1.856			.6072-03	.6795-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAC00011)

OH110, MODEL 60-O, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TA DEG. R	STN NO R=.90	STN NO R=.850
40	.85400	495.69	24.000	.3669-01	.4448-01	.4977-01	51.29	1.882	.4295	568.0	.6148-03	.6879-03
40	.85400	504.61	25.000	.4529-01	.5491-01	.6143-01	51.34	2.325	.4290	567.2	.7589-03	.8490-03
40	.85400	512.79	26.000	.4976-01	.6031-01	.6746-01	51.40	2.558	.4283	566.4	.8336-03	.9324-03
40	.85400	517.49	27.000	.4070-01	.4931-01	.5514-01	51.48	2.095	.4275	565.3	.6816-03	.7622-03
40	.85400	514.51	28.000	.5131-01	.6213-01	.6946-01	51.61	2.648	.4261	563.4	.8589-03	.9602-03
40	.85400	506.42	29.000	.5052-01	.6115-01	.6834-01	51.75	2.615	.4246	561.4	.8454-03	.9448-03
40	.86200	427.05	30.000	.2694-02	.3260-02	.3642-02	51.86	1.397	.4235	560.0	.4507-04	.5035-04
40	.86200	438.95	31.000	.5853-02	.7091-02	.7930-02	51.51	3.015	.4272	564.9	.9802-04	.1096-03
40	.86200	451.59	32.000	.2181-01	.2645-01	.2960-01	51.27	1.118	.4298	568.3	.3656-03	.4091-03
40	.86200	478.95	34.000	.5055-01	.6131-01	.6862-01	51.23	2.590	.4302	568.9	.8474-03	.9483-03
40	.86200	488.55	35.000	.3719-01	.4510-01	.5046-01	51.26	1.906	.4298	568.4	.6233-03	.6974-03
40	.86200	498.45	36.000	.3132-01	.3797-01	.4249-01	51.30	1.607	.4295	567.9	.5248-03	.5872-03
40	.86200	507.16	37.000	.3279-01	.3974-01	.4446-01	51.38	1.684	.4286	566.8	.5493-03	.6145-03
40	.86200	515.29	38.000	.3054-01	.3700-01	.4139-01	51.46	1.572	.4277	565.6	.5115-03	.5720-03
40	.86200	521.19	39.000	.2495-01	.3023-01	.3380-01	51.51	1.285	.4272	564.9	.4178-03	.4672-03
40	.86200	520.43	40.000	.3267-01	.3956-01	.4423-01	51.60	1.686	.4262	563.5	.5469-03	.6114-03
40	.86200	512.69	41.000	.4119-01	.4985-01	.5572-01	51.73	2.131	.4248	561.7	.6882-03	.7703-03
40	.87200	428.93	42.000	.3171-02	.3839-02	.4290-02	51.72	1.640	.4249	561.9	.5307-04	.5931-04
40	.87200	441.15	43.000	.6295-02	.7627-02	.8530-02	51.48	3.241	.4275	565.3	.1054-03	.1179-03
40	.87200	452.74	44.000	.2081-01	.2523-01	.2833-01	51.32	1.068	.4292	567.6	.3487-03	.3902-03
40	.87200	466.33	45.000	.5162-01	.6261-01	.7007-01	51.24	2.645	.4301	568.7	.8653-03	.9683-03
40	.87200	479.54	46.000	.5223-01	.6335-01	.7089-01	51.25	2.677	.4299	568.5	.8755-03	.9797-03
40	.87200	489.71	47.000	.3415-01	.4140-01	.4633-01	51.29	1.751	.4295	568.0	.5722-03	.6403-03
40	.87200	499.35	48.000	.2325-01	.2818-01	.3153-01	51.34	1.193	.4290	567.3	.3895-03	.4357-03
40	.87200	508.42	49.000	.2128-01	.2579-01	.2885-01	51.43	1.094	.4281	566.1	.3565-03	.3987-03
40	.87200	516.86	50.000	.2236-01	.2710-01	.3030-01	51.48	1.151	.4275	565.3	.3745-03	.4188-03
40	.87200	524.20	51.000	.1804-01	.2185-01	.2443-01	51.54	.9298	.4268	564.4	.3021-03	.3378-03
40	.87200	524.50	52.000	.1983-01	.2401-01	.2684-01	51.63	1.024	.4258	563.1	.3319-03	.3710-03
40	.87200	518.62	53.000	.1287-01	.1557-01	.1739-01	51.84	.6670	.4236	560.2	.2152-03	.2404-03
40	.88100	467.72	58.000	.5927-01	.7210-01	.8095-01	50.51	2.994	.4380	579.2	.9961-03	.1117-02
40	.88100	501.33	61.000	.1042-01	.1262-01	.1411-01	51.59	.5376	.4263	563.7	.1744-03	.1950-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG001)

OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
42	3.817	5.280	34.10	.0000	307.3	1303.	318.2	.4144	201.7	.1724-03	3675.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW-540										
42	.0000	.2832										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
42	.83500	437.62	1.0000	.4873-02	.5883-02	.6563-02	52.45	.2556	.4177	554.0	.8167-04	.9111-04
42	.83500	451.57	2.0000	.2604-02	.3147-02	.3512-02	52.23	.1360	.4200	557.0	.4367-04	.4875-04
42	.83500	463.35	3.0000	.1857-01	.2245-01	.2507-01	52.11	.9677	.4214	558.8	.3116-03	.3480-03
42	.83500	474.41	4.0000	.3723-01	.4501-01	.5027-01	52.09	1.939	.4216	559.1	.6248-03	.6977-03
42	.83500	485.17	5.0000	.6410-01	.7750-01	.8656-01	52.05	3.336	.4219	559.6	.1076-02	.1201-02
42	.83500	497.18	7.0000	.8530-01	.1031	.1151	52.22	4.454	.4202	557.3	.1431-02	.1597-02
42	.83500	495.98	8.0000	.6400-01	.7728-01	.8623-01	52.40	3.353	.4182	554.6	.1073-02	.1197-02
42	.83300	434.29	9.0000	.9393-01	.1136	.1268	52.11	4.895	.4213	558.7	.1576-02	.1760-02
42	.83300	446.10	10.000	.7545-02	.9120-02	.1018-01	52.16	.3936	.4208	558.0	.1266-03	.1413-03
42	.84300	459.73	11.000	.1172-01	.1417-01	.1583-01	51.97	.6030	.4228	560.8	.1967-03	.2197-03
42	.84300	472.01	12.000	.2677-01	.3239-01	.3618-01	51.94	1.391	.4228	561.3	.4495-03	.5021-03
42	.84300	482.44	13.000	.2479-01	.2998-01	.3349-01	51.97	1.288	.4228	560.7	.4161-03	.4647-03
42	.84300	492.89	14.000	.2371-01	.2868-01	.3203-01	51.99	1.233	.4226	560.4	.3980-03	.4446-03
42	.84300	501.43	15.000	.3937-01	.4760-01	.5316-01	52.05	2.049	.4219	559.6	.6607-03	.7378-03
42	.84300	509.10	16.000	.7495-01	.9062-01	.1012	52.06	3.902	.4218	559.4	.1258-02	.1405-02
42	.84300	510.38	17.000	.8781-01	.1061	.1185	52.22	4.586	.4201	557.2	.1473-02	.1644-02
42	.84300	504.13	18.000	.5638-01	.6809-01	.7598-01	52.38	2.953	.4184	554.9	.9452-03	.1055-02
42	.85400	437.47	19.000	.9584-03	.1158-02	.1292-02	52.29	.5012-01	.4194	556.2	.1607-04	.1794-04
42	.85400	449.66	20.000	.7557-02	.9138-02	.1021-01	52.05	.3933	.4220	559.7	.1268-03	.1416-03
42	.85400	462.41	21.000	.1185-01	.1433-01	.1601-01	51.91	.6150	.4234	561.5	.1989-03	.2222-03
42	.85400	475.11	22.000	.2884-01	.3489-01	.3898-01	51.88	1.496	.4238	562.1	.4842-03	.5410-03
42	.85400	485.84	23.000	.2788-01	.3373-01	.3769-01	51.92	1.448	.4233	561.4	.4681-03	.5230-03

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OH110, MODEL 60-0, OMS POD

(RAG001)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
42	.85400	495.69	24.000	.2039-01	.2467-01	.2755-01	51.97	1.060	.4228	560.8	.3423-03	.3824-03
42	.85400	504.61	25.000	.1926-01	.2329-01	.2602-01	52.01	1.000	.4224	560.2	.3233-03	.3611-03
42	.85400	512.79	26.000	.2363-01	.2857-01	.3191-01	52.07	1.230	.4218	559.4	.3565-03	.4428-03
42	.85400	517.49	27.000	.3522-01	.4257-01	.4754-01	52.13	1.836	.4211	558.4	.5909-03	.6598-03
42	.85400	514.51	28.000	.4547-01	.5493-01	.6131-01	52.26	2.376	.4197	556.6	.7625-03	.8511-03
42	.85400	506.42	29.000	.4132-01	.4989-01	.5567-01	52.40	2.165	.4182	554.7	.6926-03	.7728-03
42	.86200	427.05	30.000	.4369-03	.5273-03	.5882-03	52.51	.2294-01	.4170	553.1	.7320-05	.8166-05
42	.86200	438.95	31.000	.1345-02	.1625-02	.1814-02	52.19	.7017-01	.4205	557.7	.2266-04	.2518-04
42	.86200	451.59	32.000	.6349-02	.7680-02	.8579-02	51.96	.3299	.4229	560.9	.1066-03	.1191-03
42	.86200	478.95	34.000	.3305-01	.3998-01	.4466-01	51.93	1.716	.4233	561.4	.5548-03	.6198-03
42	.86200	488.55	35.000	.3240-01	.3919-01	.4378-01	51.96	1.683	.4230	560.9	.5439-03	.6075-03
42	.86200	498.45	36.000	.2299-01	.2780-01	.3106-01	51.97	1.195	.4228	560.7	.3858-03	.4310-03
42	.86200	507.16	37.000	.1818-01	.2199-01	.2455-01	52.04	.9462	.4220	559.7	.3051-03	.3408-03
42	.86200	515.29	38.000	.1557-01	.1882-01	.2102-01	52.11	.8114	.4213	558.7	.2612-03	.2917-03
42	.86200	521.19	39.000	.1750-01	.2115-01	.2361-01	52.17	.9128	.4207	557.9	.2935-03	.3277-03
42	.86200	512.69	41.000	.2970-01	.3588-01	.4005-01	52.25	1.552	.4198	556.7	.4981-03	.5560-03
42	.86200	428.93	42.000	.3639-01	.4395-01	.4904-01	52.37	1.906	.4185	555.0	.6100-03	.6807-03
42	.87200	441.15	43.000	.2261-02	.2733-02	.3052-02	52.16	.9881-01	.4184	554.8	.3194-04	.3564-04
42	.87200	452.74	44.000	.1905-02	.2301-02	.2567-02	52.02	1.180	.4207	558.0	.3794-04	.4236-04
42	.87200	466.33	45.000	.6088-02	.7362-02	.8223-02	52.02	1.166	.4223	560.1	.1022-03	.1141-03
42	.87200	479.54	46.000	.1951-01	.2360-01	.2637-01	51.94	1.013	.4231	561.1	.3275-03	.3659-03
42	.87200	489.71	47.000	.3220-01	.3895-01	.4352-01	51.95	1.673	.4230	561.0	.5406-03	.6039-03
42	.87200	499.35	48.000	.2974-01	.3598-01	.4019-01	51.98	1.546	.4227	560.6	.4993-03	.5577-03
42	.87200	508.42	49.000	.2172-01	.2627-01	.2934-01	52.03	1.130	.4221	559.8	.3646-03	.4072-03
42	.87200	516.86	50.000	.1619-01	.1958-01	.2186-01	52.10	.837	.4214	558.9	.2717-03	.3034-03
42	.87200	524.20	51.000	.1498-01	.1811-01	.2022-01	52.14	.7812	.4210	558.3	.2514-03	.2807-03
42	.87200	524.50	52.000	.1231-01	.1487-01	.1661-01	52.20	.6425	.4203	557.4	.2065-03	.2305-03
42	.87200	518.62	53.000	.1779-01	.2149-01	.2398-01	52.27	.9296	.4196	556.5	.2983-03	.3329-03
42	.88100	467.72	58.000	.1400-01	.1690-01	.1885-01	52.48	.7346	.4173	553.5	.2346-03	.2617-03
42	.88100	501.33	61.000	.2631-01	.3182-01	.3555-01	51.94	1.366	.4232	561.2	.4416-03	.4933-03
42	.88100			.1070-01	.1292-01	.1442-01	52.36	.5602	.4186	555.1	.1793-03	.2001-03

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OMS POD (50-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPD8RK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
44	3.856	5.280	27.50	.0000	307.9	1296.	316.5	.4154	200.6	.1738-03	3665.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2834										
44	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
44	.83500	437.62	1.0000	.2900-01	.3511-01	.3925-01	51.46	1.492	.4257	561.6	.4851-03	.5423-03
44	.83500	451.57	2.0000	.1039	.1259	.1408	51.28	5.328	.4277	564.1	.1739-02	.1945-02
44	.83500	463.35	3.0000	.2386	.2892	.3236	51.18	12.21	.4288	565.6	.3995-02	.4470-02
44	.83500	474.41	4.0000	.1617	.1961	.2193	51.18	8.279	.4287	565.5	.2708-02	.3030-02
44	.83500	485.17	5.0000	.6813-01	.8260-01	.9241-01	51.15	3.474	.4291	566.0	.1141-02	.1277-02
44	.83500	497.18	7.0000	.6779-01	.8215-01	.9189-01	51.25	3.875	.4280	564.6	.1135-02	.1269-02
44	.83500	495.98	8.0000	.7530-01	.9118-01	.1019	51.46	3.875	.4257	561.6	.1260-02	.1408-02
44	.84300	434.29	9.0000	.5061-01	.6134-01	.6861-01	51.20	3.337	.4285	565.2	.8473-03	.9478-03
44	.84300	446.10	10.000	.6518-01	.7901-01	.8838-01	51.06	6.123	.4286	565.3	.1091-02	.1221-02
44	.84300	459.73	11.000	.1199	.1454	.1627	51.04	9.900	.4301	567.3	.2009-02	.2248-02
44	.84300	472.01	12.000	.1939	.2352	.2633	51.09	6.275	.4302	567.5	.3249-02	.3636-02
44	.84300	482.44	13.000	.1228	.1489	.1666	51.11	4.855	.4297	566.8	.2057-02	.2302-02
44	.84300	492.89	14.000	.9500-01	.1152	.1289	51.17	3.636	.4289	565.8	.1591-02	.1780-02
44	.84300	501.43	15.000	.7107-01	.8615-01	.9638-01	51.18	3.031	.4288	565.6	.1190-02	.1331-02
44	.84300	508.10	16.000	.5922-01	.7179-01	.8031-01	51.32	3.766	.4272	563.6	.9917-03	.1109-02
44	.84300	510.38	17.000	.7337-01	.8889-01	.9941-01	51.45	3.360	.4259	561.8	.1228-02	.1373-02
44	.84300	504.13	18.000	.6530-01	.7908-01	.8840-01	51.33	1.263	.4272	563.5	.1093-02	.1221-02
44	.84300	437.47	19.000	.2460-01	.2981-01	.3333-01	51.12	2.146	.4294	566.4	.4118-03	.4605-03
44	.85400	449.65	20.000	.4199-01	.5091-01	.5696-01	51.01	4.596	.4306	567.9	.7032-03	.7868-03
44	.85400	462.41	21.000	.9010-01	.1093	.1223	51.01	7.537	.4307	568.1	.1509-02	.1689-02
44	.85400	475.11	22.000	.1478	.1792	.2006	51.01	4.134	.4301	567.3	.2476-02	.2771-02
44	.85400	485.84	23.000	.8097-01	.9820-01	.1099	51.06				.1356-02	.1518-02

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OH110, MODEL 60-0, OHS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	-HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
44	.85400	495.69	24.000	.6552-01	.7944-01	.8888-01	51.12	3.349	.4294	566.4	.1097-02	.1228-02
44	.85400	504.61	25.000	.6299-01	.7635-01	.8542-01	51.18	3.223	.4289	565.6	.1055-02	.1180-02
44	.85400	512.79	26.000	.4500-01	.5455-01	.6101-01	51.21	2.305	.4284	565.1	.7535-03	.8428-03
44	.85400	517.49	27.000	.3516-01	.4261-01	.4765-01	51.27	1.803	.4277	564.2	.5886-03	.6583-03
44	.85400	514.51	28.000	.4981-01	.6033-01	.6745-01	51.38	2.559	.4266	562.7	.8335-03	.9319-03
44	.85400	506.42	29.000	.5642-01	.6831-01	.7636-01	51.50	2.906	.4253	561.1	.9438-03	.1055-02
44	.86200	427.05	30.000	.8059-02	.9756-02	.1090-01	51.51	.4151	.4252	560.9	.1348-03	.1507-03
44	.86200	438.95	31.000	.1587-01	.1923-01	.2151-01	51.24	.8130	.4281	564.8	.2657-03	.2971-03
44	.86200	451.59	32.000	.4645-01	.5634-01	.6305-01	51.05	2.371	.4302	567.5	.7782-03	.8709-03
44	.86200	478.95	34.000	.9303-01	.1128	.1263	51.07	4.751	.4300	567.2	.1558-02	.1744-02
44	.86200	488.55	35.000	.5706-01	.6919-01	.7742-01	51.11	2.916	.4296	566.6	.9557-03	.1069-02
44	.86200	498.45	36.000	.4038-01	.4896-01	.5478-01	51.14	2.065	.4292	566.1	.6763-03	.7567-03
44	.86200	507.16	37.000	.3912-01	.4741-01	.5304-01	51.21	2.003	.4284	565.1	.6950-03	.7327-03
44	.86200	515.29	38.000	.3333-01	.4038-01	.4516-01	51.29	1.709	.4276	564.1	.5579-03	.6239-03
44	.86200	521.19	39.000	.2698-01	.3268-01	.3655-01	51.32	1.384	.4272	563.5	.4515-03	.5049-03
44	.86200	520.43	40.000	.3347-01	.4054-01	.4533-01	51.40	1.721	.4264	562.4	.5601-03	.6262-03
44	.86200	512.69	41.000	.4309-01	.5217-01	.5831-01	51.50	2.219	.4253	561.0	.7208-03	.8056-03
44	.87200	428.93	42.000	.7019-02	.8501-02	.9504-02	51.42	.3679	.4262	562.2	.2355-03	.2635-03
44	.87200	441.15	43.000	.1407-01	.1705-01	.1907-01	51.24	2.202	.4295	566.6	.7216-03	.8074-03
44	.87200	452.74	44.000	.4308-01	.5224-01	.5845-01	51.11	4.581	.4301	567.4	.1503-02	.1682-02
44	.87200	466.33	45.000	.8973-01	.1088	.1218	51.05	4.092	.4297	566.8	.1341-02	.1501-02
44	.87200	479.54	46.000	.8009-01	.9711-01	.1087	51.10	4.092	.4291	566.0	.7292-03	.8159-03
44	.87200	489.71	47.000	.4354-01	.5279-01	.5906-01	51.15	2.227	.4291	565.4	.4353-03	.4870-03
44	.87200	499.35	48.000	.2600-01	.3151-01	.3525-01	51.20	1.331	.4286	564.2	.3607-03	.4034-03
44	.87200	508.42	49.000	.2155-01	.2611-01	.2920-01	51.28	1.105	.4277	563.6	.3762-03	.4207-03
44	.87200	516.86	50.000	.2248-01	.2723-01	.3046-01	51.32	1.154	.4272	563.0	.3391-03	.3792-03
44	.87200	524.20	51.000	.2027-01	.2455-01	.2745-01	51.36	1.041	.4268	562.0	.3868-03	.4325-03
44	.87200	524.50	52.000	.2312-01	.2800-01	.3130-01	51.43	1.189	.4261	559.1	.2927-03	.3271-03
44	.87200	518.62	53.000	.1751-01	.2119-01	.2367-01	51.64	.9041	.4238	567.1	.1528-02	.1710-02
44	.88100	467.72	58.000	.9120-01	.1106	.1238	51.07	4.658	.4299	560.6	.1882-03	.2103-03
44	.88100	501.33	61.000	.1125-01	.1362-01	.1522-01	51.53	.5797	.4250			

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
31	4.942	5.280	20.00	.0000	407.7	1323.	323.4	.5493	205.0	.2249-03	3705.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
31	.0000	.3266

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
31	.83500	437.62	1.0000	.8118-01	.9759-01	.1086	62.79	5.097	.4053	546.3	.1189-02	.1322-02
31	.83500	451.57	2.0000	.2273	.2736	.3046	62.42	14.19	.4088	550.9	.3332-02	.3710-02
31	.83500	463.35	3.0000	.2951	.3555	.3959	62.16	18.34	.4111	554.1	.4328-02	.4821-02
31	.83500	474.41	4.0000	.1590	.1915	.2134	62.14	9.880	.4113	554.4	.2332-02	.2598-02
31	.83500	485.17	5.0000	.7070-01	.8519-01	.9492-01	62.05	4.387	.4121	555.5	.1037-02	.1156-02
31	.83500	497.18	7.0000	.4938-01	.5945-01	.6620-01	62.30	3.076	.4098	552.3	.7239-03	.8061-03
31	.83500	495.98	8.0000	.5131-01	.6172-01	.6869-01	62.60	3.212	.4071	548.7	.7517-03	.8365-03
31	.84300	434.29	9.0000	.4742-01	.5713-01	.6364-01	62.14	2.947	.4113	554.4	.6956-03	.7748-03
31	.84300	446.10	10.000	.2663	.3207	.3571	62.25	16.57	.4103	553.0	.3904-02	.4348-02
31	.84300	459.73	11.000	.2714	.3271	.3646	61.93	16.81	.4132	556.9	.3982-02	.4438-02
31	.84300	472.01	12.000	.2708	.3265	.3640	61.85	16.75	.4140	557.9	.3975-02	.4431-02
31	.84300	482.44	13.000	.2223	.2680	.2987	61.94	13.77	.4132	556.9	.3263-02	.3636-02
31	.84300	492.89	14.000	.1519	.1831	.2041	61.97	9.414	.4129	556.5	.2229-02	.2484-02
31	.84300	501.43	15.000	.8585-01	.1035	.1154	61.81	5.306	.4143	558.4	.1260-02	.1405-02
31	.84300	508.10	16.000	.6760-01	.8145-01	.9074-01	62.07	4.195	.4120	555.3	.9916-03	.1105-02
31	.84300	510.38	17.000	.6741-01	.8116-01	.9038-01	62.28	4.198	.4100	552.6	.9882-03	.1101-02
31	.84300	504.13	18.000	.4886-01	.5877-01	.6541-01	62.57	3.057	.4074	549.0	.7158-03	.7966-03
31	.85400	437.47	19.000	.1305	.1571	.1749	62.47	8.156	.4082	550.2	.1913-02	.2130-02
31	.85400	449.66	20.000	.1645	.1982	.2208	62.04	10.20	.4122	555.5	.2413-02	.2688-02
31	.85400	462.41	21.000	.1529	.1844	.2055	61.82	9.451	.4142	558.3	.2244-02	.2502-02
31	.85400	475.11	22.000	.1428	.1722	.1919	61.78	8.819	.4146	558.8	.2096-02	.2336-02
31	.85400	485.84	23.000	.1151	.1388	.1547	61.87	7.120	.4138	557.7	.1689-02	.1883-02

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OH110, MODEL 60-0, OMS POD

(RAG003)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
31	.85400	495.69	24.000	.1291	.1556	.1734	61.94	7.997	.4131	556.8	.1894-02	.2111-02
31	.85400	504.61	25.000	.9856-01	.1188	.1324	62.00	6.110	.4126	556.1	.1446-02	.1611-02
31	.85400	512.79	26.000	.6240-01	.7518-01	.8376-01	62.07	3.873	.4120	555.2	.9153-03	.1020-02
31	.85400	517.49	27.000	.4911-01	.5915-01	.6589-01	62.16	3.053	.4111	554.0	.7202-03	.8022-03
31	.85400	514.51	28.000	.5341-01	.6429-01	.7158-01	62.37	3.331	.4092	551.5	.7828-03	.8716-03
31	.85400	506.42	29.000	.4792-01	.5763-01	.6413-01	62.64	3.002	.4067	548.2	.7019-03	.7810-03
31	.86200	427.05	30.000	.3572-01	.4293-01	.4775-01	62.87	2.246	.4046	545.3	.5229-03	.5816-03
31	.86200	438.95	31.000	.9181-01	.1106	.1231	62.27	5.717	.4101	552.7	.1346-02	.1499-02
31	.86200	451.59	32.000	.1158	.1396	.1556	61.88	7.166	.4137	557.5	.1700-02	.1894-02
31	.86200	478.95	34.000	.7877-01	.9498-01	.1059	61.86	4.873	.4139	557.8	.1156-02	.1289-02
31	.86200	488.55	35.000	.6416-01	.7734-01	.8619-01	61.94	3.974	.4131	556.8	.9415-03	.1049-02
31	.86200	498.45	36.000	.6635-01	.7998-01	.8912-01	61.96	4.111	.4129	556.5	.9736-03	.1085-02
31	.86200	507.16	37.000	.7508-01	.9046-01	.1008	62.07	4.661	.4119	555.1	.1101-02	.1227-02
31	.86200	515.29	38.000	.5230-01	.6300-01	.7018-01	62.16	3.251	.4111	554.1	.7671-03	.8545-03
31	.86200	521.19	39.000	.3983-01	.4797-01	.5343-01	62.23	2.479	.4105	553.2	.5841-03	.6505-03
31	.86200	520.43	40.000	.4489-01	.5404-01	.6016-01	62.37	2.800	.4092	551.5	.6580-03	.7326-03
31	.86200	512.69	41.000	.4876-01	.5866-01	.6528-01	62.61	3.053	.4070	548.6	.7143-03	.7950-03
31	.87200	428.93	42.000	.3516-01	.4229-01	.4707-01	62.63	2.202	.4068	548.3	.5151-03	.5732-03
31	.87200	441.15	43.000	.7189-01	.8657-01	.9641-01	62.25	4.475	.4103	553.0	.1054-02	.1174-02
31	.87200	452.74	44.000	.9763-01	.1177	.1311	61.99	6.053	.4126	556.1	.1433-02	.1596-02
31	.87200	466.33	45.000	.9613-01	.1159	.1292	61.92	5.953	.4133	557.0	.1411-02	.1572-02
31	.87200	479.54	46.000	.6924-01	.8346-01	.9302-01	61.92	4.287	.4133	557.1	.1016-02	.1132-02
31	.87200	489.71	47.000	.4340-01	.5231-01	.5829-01	61.99	2.690	.4126	556.2	.6368-03	.7096-03
31	.87200	499.35	48.000	.3346-01	.4031-01	.4491-01	62.09	2.077	.4118	555.0	.4908-03	.5468-03
31	.87200	508.42	49.000	.3604-01	.4342-01	.4836-01	62.18	2.241	.4104	553.8	.5286-03	.5888-03
31	.87200	516.86	50.000	.4229-01	.5093-01	.5673-01	62.23	2.632	.4104	553.2	.6202-03	.6907-03
31	.87200	524.20	51.000	.3097-01	.3728-01	.4151-01	62.34	1.930	.4095	551.9	.4540-03	.5055-03
31	.87200	524.50	52.000	.3433-01	.4132-01	.4600-01	62.45	2.144	.4084	550.4	.5031-03	.5601-03
31	.87200	518.62	53.000	.3392-01	.4077-01	.4535-01	62.84	2.132	.4049	545.7	.4966-03	.5524-03
31	.88100	467.72	58.000	.8490-01	.1024	.1141	61.87	5.253	.4137	557.6	.1246-02	.1389-02
31	.88100	501.33	61.000	.1342-01	.1615-01	.1797-01	62.59	.8401	.4072	548.8	.1966-03	.2188-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG003)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
33	5.078	5.280	22.50	.0000	408.1	1301.	317.9	.5505	201.5	.2293-03	3673.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3264
33	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
33	.83500	437.62	1.0000	.5827-01	.7037-01	.7851-01	60.33	3.516	.4182	554.0	.8470-03	.9450-03
33	.83500	451.57	2.0000	.2019	.2442	.2727	59.96	12.11	.4216	558.6	.2938-02	.3281-02
33	.83500	463.35	3.0000	.2344	.2836	.3168	59.72	14.00	.4239	561.6	.3412-02	.3813-02
33	.83500	474.41	4.0000	.1223	.1480	.1654	59.68	7.299	.4242	562.1	.1781-02	.1990-02
33	.83500	485.17	5.0000	.6809-01	.8242-01	.9212-01	59.61	4.059	.4249	562.9	.9917-03	.1108-02
33	.83500	497.18	7.0000	.1010	.1222	.1365	59.84	6.046	.4227	560.1	.1470-02	.1643-02
33	.83500	495.98	8.0000	.8741-01	.1056	.1179	59.68	5.255	.4201	556.6	.1271-02	.1419-02
33	.84300	434.29	9.0000	.7592-01	.9188-01	.1027	59.82	4.531	.4243	562.1	.1106-02	.1235-02
33	.84300	446.10	10.000	.1846	.2233	.2494	59.52	11.04	.4230	560.4	.2687-02	.3002-02
33	.84300	459.73	11.000	.2054	.2487	.2780	59.45	12.22	.4258	564.1	.2892-02	.3345-02
33	.84300	472.01	12.000	.1968	.2383	.2664	59.51	11.70	.4265	565.0	.2867-02	.3206-02
33	.84300	482.44	13.000	.1753	.2123	.2373	59.53	10.43	.4259	564.2	.2554-02	.2855-02
33	.84300	492.89	14.000	.1132	.1370	.1532	59.57	6.737	.4257	564.0	.1649-02	.1843-02
33	.84300	501.43	15.000	.7616-01	.9220-01	.1031	59.57	4.537	.4253	563.4	.1109-02	.1240-02
33	.84300	508.10	16.000	.6635-01	.8031-01	.8974-01	59.64	3.957	.4246	562.6	.9663-03	.1080-02
33	.84300	510.38	17.000	.8369-01	.1012	.1131	59.84	5.008	.4228	560.2	.1218-02	.1361-02
33	.84300	504.13	18.000	.4550-01	.5499-01	.6139-01	60.10	2.734	.4204	557.0	.6618-03	.7388-03
33	.85400	437.47	19.000	.6014-01	.7269-01	.8116-01	60.04	3.611	.4209	557.6	.8748-03	.9768-03
33	.85400	449.66	20.000	.1673	.1673	.1869	59.42	8.242	.4246	562.6	.2013-02	.2249-02
33	.85400	462.41	21.000	.1382	.1531	.1712	59.42	7.510	.4267	565.3	.1842-02	.2059-02
33	.85400	475.11	22.000	.1090	.1320	.1476	59.39	6.472	.4270	565.7	.1588-02	.1776-02
33	.85400	485.84	23.000	.9333-01	.1130	.1264	59.46	5.549	.4263	564.9	.1360-02	.1520-02

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(RAG003)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
33	.85400	495.69	24.000	.1078	.1305	.1459	59.52	6.415	.4258	564.1	.1571-02	.1756-02
33	.85400	504.61	25.000	.8313-01	.1006	.1125	59.57	4.952	.4253	563.4	.1211-02	.1353-02
33	.85400	512.79	26.000	.5624-01	.6806-01	.7606-01	59.65	3.354	.4246	562.5	.8190-03	.9152-03
33	.85400	517.49	27.000	.4376-01	.5295-01	.5916-01	59.74	2.614	.4237	561.3	.6371-03	.7118-03
33	.85400	514.51	28.000	.4629-01	.5598-01	.6251-01	59.94	2.775	.4219	558.9	.6736-03	.7523-03
33	.85400	506.42	29.000	.3882-01	.4691-01	.5236-01	60.17	2.336	.4197	556.1	.5646-03	.6302-03
33	.86200	427.05	30.000	.2228-01	.2689-01	.3000-01	60.43	1.346	.4172	552.8	.3237-03	.3611-03
33	.86200	438.95	31.000	.4776-01	.5777-01	.6453-01	59.86	2.859	.4226	559.9	.6952-03	.7765-03
33	.86200	451.59	32.000	.1227	.1486	.1661	59.49	7.299	.4260	564.4	.1788-02	.1988-02
33	.86200	478.95	34.000	.6277-01	.7603-01	.8500-01	59.45	3.732	.4264	564.9	.9147-03	.1023-02
33	.86200	488.55	35.000	.5370-01	.6503-01	.7269-01	59.52	3.196	.4258	564.1	.7824-03	.8746-03
33	.86200	498.45	36.000	.6002-01	.7267-01	.8123-01	59.56	3.575	.4254	563.7	.8743-03	.9773-03
33	.86200	507.16	37.000	.6341-01	.7674-01	.8576-01	59.66	3.783	.4245	562.4	.9234-03	.1032-02
33	.86200	515.29	38.000	.4642-01	.5617-01	.6275-01	59.73	2.772	.4238	561.5	.6758-03	.7551-03
33	.86200	521.19	39.000	.3434-01	.4154-01	.4640-01	59.80	2.053	.4231	560.6	.4998-03	.5584-03
33	.86200	520.43	40.000	.3471-01	.4196-01	.4686-01	59.94	2.080	.4219	558.9	.5050-03	.5640-03
33	.86200	512.69	41.000	.3619-01	.4372-01	.4880-01	60.15	2.177	.4198	556.2	.5262-03	.5874-03
33	.87200	428.93	42.000	.1816-01	.2194-01	.2448-01	60.21	1.093	.4193	555.6	.2640-03	.2947-03
33	.87200	441.15	43.000	.4639-01	.5612-01	.6269-01	59.83	2.776	.4229	560.3	.6753-03	.7543-03
33	.87200	452.74	44.000	.1111	.1345	.1503	59.58	6.620	.4252	563.3	.1618-02	.1809-02
33	.87200	466.33	45.000	.8487-01	.1028	.1149	59.52	5.051	.4258	564.1	.1236-02	.1382-02
33	.87200	479.54	46.000	.5538-01	.6706-01	.7496-01	59.50	3.295	.4259	564.3	.8068-03	.9019-03
33	.87200	489.71	47.000	.3550-01	.4298-01	.4804-01	59.57	2.115	.4253	563.4	.5171-03	.5780-03
33	.87200	499.35	48.000	.2833-01	.3429-01	.3832-01	59.65	1.690	.4246	562.5	.4126-03	.4611-03
33	.87200	508.42	49.000	.3211-01	.3885-01	.4341-01	59.75	1.919	.4236	561.2	.4675-03	.5223-03
33	.87200	516.86	50.000	.3525-01	.4264-01	.4764-01	59.80	2.108	.4232	560.6	.5132-03	.5733-03
33	.87200	524.20	51.000	.2640-01	.3193-01	.3566-01	59.90	1.581	.4222	559.4	.3842-03	.4291-03
33	.87200	524.50	52.000	.2384-01	.2882-01	.3218-01	60.00	1.430	.4212	558.1	.3468-03	.3872-03
33	.87200	518.62	53.000	.2256-01	.2724-01	.3039-01	60.36	4.225	.4180	553.7	.3279-03	.3658-03
33	.88100	467.72	58.000	.7205-01	.8751-01	.9803-01	58.64	.7031	.4340	575.0	.1052-02	.1179-02
33	.88100	501.33	61.000	.1170-01	.1414-01	.1578-01	60.11		.4203	556.8	.1701-03	.1899-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG003)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
35	4.988	5.280	25.00	.0000	407.4	1315.	321.3	.5492	203.6	.2263-03	3693.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3264
35	.0000	

TEST DATA

RUN NUMBER	XB/LB	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
35	.83500	437.62	1.0000	.5234-01	.6290-01	.6996-01	62.47	3.270	.4042	541.3	.7634-03	.8490-03
35	.83500	451.57	2.0000	.1898	.2284	.2542	62.09	11.78	.4077	546.0	.2771-02	.3087-02
35	.83500	463.35	3.0000	.2231	.2686	.2991	61.86	13.80	.4098	548.8	.3259-02	.3629-02
35	.83500	474.41	4.0000	.1104	.1329	.1480	61.82	6.822	.4102	549.3	.1612-02	.1795-02
35	.83500	485.17	5.0000	.6285-01	.7570-01	.8432-01	61.75	3.881	.4109	550.2	.9184-03	.1023-02
35	.83500	497.18	7.0000	.1062	.1278	.1423	62.02	6.588	.4083	546.8	.1551-02	.1726-02
35	.83500	495.98	8.0000	.9456-01	.1137	.1265	62.32	5.893	.4056	543.2	.1380-02	.1535-02
35	.84300	434.29	9.0000	.8101-01	.9755-01	.1086	61.83	5.009	.4101	549.2	.1183-02	.1318-02
35	.84300	446.10	10.000	.1624	.1955	.2176	61.95	10.06	.4090	547.7	.2372-02	.2640-02
35	.84300	459.73	11.000	.2016	.2430	.2707	61.62	12.42	.4121	551.8	.2947-02	.3284-02
35	.84300	472.01	12.000	.1742	.2099	.2339	61.56	10.72	.4127	552.6	.2546-02	.2837-02
35	.84300	482.44	13.000	.1362	.1641	.1828	61.64	8.395	.4119	551.6	.1991-02	.2218-02
35	.84300	492.89	14.000	.9107-01	.1097	.1222	61.66	5.615	.4117	551.3	.1331-02	.1483-02
35	.84300	501.43	15.000	.6873-01	.8278-01	.9219-01	61.78	4.246	.4106	549.9	.1004-02	.1118-02
35	.84300	508.10	16.000	.6772-01	.8156-01	.9084-01	61.76	4.182	.4108	550.1	.9894-03	.1102-02
35	.84300	510.38	17.000	.8017-01	.9648-01	.1074	61.99	4.970	.4086	547.2	.1171-02	.1303-02
35	.84300	504.13	18.000	.6110-01	.7346-01	.8173-01	62.29	3.806	.4059	543.5	.8914-03	.9918-03
35	.85400	437.47	19.000	.6504-01	.7824-01	.8708-01	62.15	4.042	.4072	545.3	.9494-03	.1057-02
35	.85400	449.66	20.000	.1406	.1693	.1886	61.73	8.676	.4110	550.4	.2054-02	.2288-02
35	.85400	462.41	21.000	.1434	.1729	.1927	61.51	8.823	.4131	553.2	.2097-02	.2337-02
35	.85400	475.11	22.000	.1064	.1283	.1430	61.47	6.540	.4134	553.6	.1556-02	.1734-02
35	.85400	485.84	23.000	.8040-01	.9689-01	.1080	61.57	4.950	.4125	552.4	.1175-02	.1310-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG003)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
35	.85400	495.69	24.000	.8750-01	.1054	.1175	61.63	5.393	.4120	551.7	.1279-02	.1425-02
35	.85400	504.61	25.000	.6827-01	.8225-01	.9162-01	61.69	4.212	.4114	550.9	.9977-03	.1111-02
35	.85400	512.79	26.000	.4713-01	.5676-01	.6322-01	61.77	2.912	.4106	549.9	.6886-03	.7670-03
35	.85400	517.49	27.000	.3371-01	.4058-01	.4519-01	61.89	2.086	.4096	548.5	.4923-03	.5482-03
35	.85400	514.51	28.000	.4651-01	.5595-01	.6228-01	62.10	2.888	.4076	545.9	.6789-03	.7556-03
35	.85400	506.42	29.000	.4963-01	.5967-01	.6638-01	62.35	3.094	.4054	542.8	.7241-03	.8055-03
35	.86200	427.05	30.000	.2806-01	.3371-01	.3749-01	62.55	1.755	.4035	540.3	.4092-03	.4550-03
35	.86200	438.95	31.000	.5785-01	.6963-01	.7753-01	61.95	3.584	.4090	547.7	.8448-03	.9406-03
35	.86200	451.59	32.000	.1369	.1650	.1839	61.58	8.432	.4124	552.3	.2002-02	.2230-02
35	.86200	478.95	34.000	.6461-01	.7787-01	.8678-01	61.55	3.977	.4127	552.7	.9446-03	.1053-02
35	.86200	488.55	35.000	.4923-01	.5931-01	.6609-01	61.62	3.034	.4120	551.7	.7195-03	.8017-03
35	.86200	498.45	36.000	.5142-01	.6196-01	.6902-01	61.65	3.170	.4118	551.4	.7516-03	.8373-03
35	.86200	507.16	37.000	.5379-01	.6478-01	.7215-01	61.78	3.323	.4106	549.8	.7858-03	.8753-03
35	.86200	515.29	38.000	.3870-01	.4660-01	.5189-01	61.87	2.394	.4098	548.7	.5653-03	.6295-03
35	.86200	521.19	39.000	.2838-01	.3416-01	.3803-01	61.95	1.758	.4090	547.7	.4145-03	.4615-03
35	.86200	520.43	40.000	.3125-01	.3760-01	.4185-01	62.11	1.941	.4076	545.8	.4562-03	.5078-03
35	.86200	512.69	41.000	.4308-01	.5180-01	.5762-01	62.32	2.685	.4056	543.1	.6285-03	.6993-03
35	.87200	428.93	42.000	.2856-01	.3433-01	.3820-01	62.31	1.779	.4057	543.3	.4168-03	.4635-03
35	.87200	441.15	43.000	.5848-01	.7039-01	.7838-01	61.92	3.621	.4093	548.1	.8540-03	.9509-03
35	.87200	452.74	44.000	.1226	.1478	.1646	61.67	7.564	.4116	551.2	.1792-02	.1997-02
35	.87200	466.33	45.000	.9848-01	.1187	.1322	61.62	6.068	.4121	551.8	.1439-02	.1604-02
35	.87200	479.54	46.000	.6026-01	.7261-01	.8091-01	61.61	3.713	.4122	552.0	.8808-03	.9814-03
35	.87200	489.71	47.000	.3558-01	.4286-01	.4775-01	61.68	2.194	.4115	551.1	.5195-03	.5792-03
35	.87200	499.35	48.000	.2756-01	.3320-01	.3697-01	61.78	1.703	.4106	549.8	.4027-03	.4486-03
35	.87200	508.42	49.000	.3036-01	.3655-01	.4070-01	61.89	1.879	.4096	548.5	.4435-03	.4938-03
35	.87200	516.86	50.000	.3224-01	.3881-01	.4321-01	61.93	1.997	.4092	548.0	.4709-03	.5243-03
35	.87200	524.20	51.000	.2355-01	.2834-01	.3155-01	62.05	1.461	.4081	546.5	.3439-03	.3828-03
35	.87200	524.50	52.000	.2443-01	.2939-01	.3271-01	62.17	1.519	.4070	545.0	.3566-03	.3969-03
35	.87200	518.62	53.000	.2352-01	.2825-01	.3142-01	62.53	1.471	.4036	540.5	.3429-03	.3813-03
35	.88100	467.72	58.000	.7643-01	.9236-01	.1031	60.72	4.641	.4204	562.9	.1120-02	.1250-02
35	.88100	501.33	61.000	.9878-02	.1188-01	.1322-01	62.25	.6149	.4062	544.0	.1441-03	.1604-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG0003)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
37	5.101	5.280	27.50	.0000	406.9	1235.	316.3	.5490	200.5	.2298-03	3664.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540
37	.0000	.3258

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
37	.83500	437.62	1.0000	.3525-01	.4269-01	.4773-01	59.04	2.081	.4265	562.2	.5128-03	.5733-03
37	.83500	451.57	2.0000	.1489	.1806	.2021	58.70	8.743	.4296	566.3	.2169-02	.2427-02
37	.83500	463.35	3.0000	.2511	.3047	.3411	58.48	14.68	.4317	569.1	.3659-02	.4097-02
37	.83500	474.41	4.0000	.1440	.1748	.1957	58.45	8.416	.4320	569.4	.2099-02	.2350-02
37	.83500	485.17	5.0000	.6214-01	.7543-01	.8447-01	58.39	3.628	.4326	570.2	.9058-03	.1014-02
37	.83500	497.18	7.0000	.7027-01	.8522-01	.9537-01	58.66	4.122	.4300	566.8	.1024-02	.1145-02
37	.83500	495.98	8.0000	.1043	.1264	.1414	58.74	6.125	.4292	565.8	.1518-02	.1699-02
37	.84300	434.29	9.0000	.5701-01	.6919-01	.7746-01	58.49	3.335	.4316	569.0	.8309-03	.9302-03
37	.84300	446.10	10.000	.8762-01	.1063	.1190	58.57	5.132	.4309	568.0	.1277-02	.1429-02
37	.84300	459.73	11.000	.1704	.2069	.2318	58.29	9.933	.4335	571.5	.2485-02	.2783-02
37	.84300	472.01	12.000	.1893	.2299	.2576	58.21	11.02	.4342	572.4	.2761-02	.3093-02
37	.84300	482.44	13.000	.1190	.1445	.1618	58.27	6.932	.4336	571.6	.1735-02	.1943-02
37	.84300	492.89	14.000	.8901-01	.1081	.1210	58.32	5.191	.4332	571.1	.1298-02	.1453-02
37	.84300	501.43	15.000	.6271-01	.7612-01	.8522-01	58.45	3.665	.4320	569.5	.9141-03	.1023-02
37	.84300	508.10	16.000	.6233-01	.7566-01	.8472-01	58.42	3.641	.4323	569.9	.9086-03	.1017-02
37	.84300	510.38	17.000	.8690-01	.1054	.1179	58.65	5.097	.4301	566.9	.1266-02	.1417-02
37	.84300	504.13	18.000	.7468-01	.9047-01	.1012	58.91	4.399	.4276	563.7	.1087-02	.1215-02
37	.85400	437.47	19.000	.3093-01	.3749-01	.4194-01	58.79	1.818	.4288	565.3	.4503-03	.5037-03
37	.85400	449.66	20.000	.5843-01	.7092-01	.7942-01	58.41	3.412	.4324	570.0	.8517-03	.9537-03
37	.85400	462.41	21.000	.1299	.1578	.1768	58.21	7.564	.4343	572.5	.1895-02	.2123-02
37	.85400	475.11	22.000	.1369	.1664	.1864	58.16	7.965	.4347	573.0	.1998-02	.2238-02
37	.85400	485.84	23.000	.7543-01	.9162-01	.1026	58.24	4.393	.4340	572.1	.1100-02	.1232-02

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OH110 (ARC3.5HAT-253) ORBITTER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG003)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
37	.85400	495.69	24.000	.6775-01	.8227-01	.9214-01	58.31	3.950	.4333	571.2	.9879-03	.1106-02
37	.85400	504.61	25.000	.5852-01	.7104-01	.7955-01	58.38	3.416	.4327	570.3	.8531-03	.9553-03
37	.85400	512.79	26.000	.4242-01	.5147-01	.5763-01	58.47	2.480	.4318	569.1	.6182-03	.6921-03
37	.85400	517.49	27.000	.3340-01	.4052-01	.4535-01	58.59	1.957	.4307	567.8	.4866-03	.5447-03
37	.85400	514.51	28.000	.5330-01	.6461-01	.7228-01	58.78	3.133	.4289	565.4	.7760-03	.8682-03
37	.85400	506.42	29.000	.5642-01	.6835-01	.7642-01	58.99	3.329	.4269	562.7	.8210-03	.9180-03
37	.86200	427.05	30.000	.1087-01	.1316-01	.1471-01	59.16	.6430	.4253	560.6	.1581-03	.1767-03
37	.86200	438.95	31.000	.1815-01	.2202-01	.2464-01	58.61	1.064	.4304	567.4	.2644-03	.2959-03
37	.86200	451.59	32.000	.6297-01	.7647-01	.8566-01	58.26	4.694	.4338	571.8	.9183-03	.1029-02
37	.86200	478.95	34.000	.8059-01	.9788-01	.1096	58.24	4.694	.4340	572.0	.1175-02	.1317-02
37	.86200	488.55	35.000	.5242-01	.6366-01	.7130-01	58.30	3.056	.4334	571.3	.7644-03	.8561-03
37	.86200	498.45	36.000	.4111-01	.4991-01	.5590-01	58.33	2.398	.4331	570.9	.5994-03	.6713-03
37	.86200	507.16	37.000	.3981-01	.4831-01	.5409-01	58.45	2.327	.4319	569.4	.5802-03	.6495-03
37	.86200	515.29	38.000	.3121-01	.3787-01	.4239-01	58.55	1.828	.4310	568.2	.4548-03	.5091-03
37	.86200	521.19	39.000	.2572-01	.3120-01	.3492-01	58.64	1.508	.4302	567.1	.3747-03	.4193-03
37	.86200	520.43	40.000	.3250-01	.3939-01	.4407-01	58.77	1.910	.4290	565.4	.4732-03	.5294-03
37	.87200	512.69	41.000	.4180-01	.5064-01	.5663-01	58.97	2.465	.4271	563.0	.6083-03	.6802-03
37	.87200	428.93	42.000	.8002-02	.9695-02	.1084-01	58.95	.4717	.4273	563.2	.1165-03	.1302-03
37	.87200	441.15	43.000	.1581-01	.1917-01	.2146-01	58.59	.9261	.4307	567.7	.2303-03	.2577-03
37	.87200	452.74	44.000	.5577-01	.6771-01	.7582-01	59.36	3.255	.4328	570.5	.8131-03	.9105-03
37	.87200	466.33	45.000	.9974-01	.1211	.1357	58.29	5.814	.4335	571.4	.1454-02	.1629-02
37	.87200	479.54	46.000	.7375-01	.8956-01	.1003	58.28	4.298	.4336	571.6	.1075-02	.1205-02
37	.87200	489.71	47.000	.3951-01	.4797-01	.5372-01	58.35	2.306	.4329	570.7	.5761-03	.6451-03
37	.87200	499.35	48.000	.2543-01	.3086-01	.3455-01	58.43	1.486	.4322	569.7	.3706-03	.4149-03
37	.87200	508.42	49.000	.2128-01	.2582-01	.2890-01	58.54	1.246	.4312	568.4	.3101-03	.3471-03
37	.87200	516.86	50.000	.2243-01	.2721-01	.3045-01	58.59	1.314	.4307	567.7	.3268-03	.3657-03
37	.87200	524.20	51.000	.1973-01	.2393-01	.2678-01	58.70	1.158	.4296	566.3	.2874-03	.3216-03
37	.87200	524.50	52.000	.2194-01	.2659-01	.2975-01	58.83	1.291	.4284	564.8	.3194-03	.3573-03
37	.87200	518.62	53.000	.1783-01	.2159-01	.2413-01	59.17	1.055	.4252	560.5	.2594-03	.2899-03
37	.88100	467.72	58.000	.9630-01	.1173	.1317	57.42	5.529	.4417	582.3	.1408-02	.1581-02
37	.88100	501.33	61.000	.1063-01	.1289-01	.1441-01	58.87	.6260	.4280	564.2	.1548-03	.1731-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-O, 60-O, 83-O

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

(RAG003)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
39	5.112	5.280	30.00	.0000	408.0	1296.	316.4	.5505	200.5	.2303-03	3665.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540
39	.0000	.3262

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
39	.83500	437.62	1.0000	.1877-01	.2265-01	.2526-01	60.19	1.129	.4166	549.4	.2719-03	.3033-03
39	.83500	451.57	2.0000	.4149-01	.5013-01	.5596-01	59.85	2.483	.4198	553.6	.6017-03	.6717-03
39	.83500	463.35	3.0000	.1575	.1904	.2127	59.58	9.382	.4223	556.9	.2285-02	.2553-02
39	.83500	474.41	4.0000	.1571	.1900	.2122	59.58	9.360	.4223	556.9	.2280-02	.2547-02
39	.83500	485.17	5.0000	.8954-01	.1083	.1210	59.51	5.329	.4230	557.8	.1300-02	.1452-02
39	.83500	497.18	7.0000	.7609-01	.9196-01	.1027	59.76	4.547	.4206	554.6	.1104-02	.1232-02
39	.83500	495.98	8.0000	.1113	.1344	.1501	59.84	6.658	.4199	553.7	.1614-02	.1801-02
39	.84300	434.29	9.0000	.8176-01	.9888-01	.1104	59.59	4.872	.4223	556.8	.1187-02	.1325-02
39	.84300	446.10	10.000	.4086-01	.4940-01	.5516-01	59.68	2.439	.4214	555.6	.5929-03	.6621-03
39	.84300	459.73	11.000	.6661-01	.8060-01	.9006-01	59.41	3.957	.4240	559.1	.9673-03	.1081-02
39	.84300	472.01	12.000	.1175	.1422	.1589	59.33	6.971	.4247	560.0	.1707-02	.1901-02
39	.84300	482.44	13.000	.1384	.1674	.1871	59.39	8.217	.4241	559.3	.2009-02	.2245-02
39	.84300	492.89	14.000	.1113	.1346	.1504	59.43	6.612	.4238	558.8	.1616-02	.1805-02
39	.84300	501.43	15.000	.8192-01	.9910-01	.1107	59.52	4.876	.4229	557.7	.1189-02	.1329-02
39	.84300	508.10	16.000	.7838-01	.9481-01	.1059	59.53	4.666	.4228	557.5	.1138-02	.1271-02
39	.84300	510.38	17.000	.8980-01	.1085	.1212	59.76	5.366	.4207	554.7	.1303-02	.1454-02
39	.84300	504.13	18.000	.8265-01	.9981-01	.1114	60.01	4.959	.4183	551.6	.1198-02	.1337-02
39	.85400	437.47	19.000	.1769-01	.2137-01	.2385-01	59.92	1.060	.4192	552.7	.2566-03	.2863-03
39	.85400	449.66	20.000	.4641-01	.5613-01	.6270-01	59.53	2.763	.4228	557.5	.6737-03	.7525-03
39	.85400	462.41	21.000	.7452-01	.9020-01	.1008	59.33	4.421	.4247	560.0	.1082-02	.1210-02
39	.85400	475.11	22.000	.9357-01	.1133	.1266	59.29	5.548	.4251	560.5	.1359-02	.1519-02
39	.85400	485.84	23.000	.9675-01	.1171	.1308	59.37	5.744	.4243	559.5	.1405-02	.1570-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG003)

OH110, MODEL 60-O, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
39	.85400	495.69	24.000	.8340-01	.1009	.1127	59.44	4.958	.4237	558.7	.1211-02	.1353-02
39	.85400	504.61	25.000	.6255-01	.7566-01	.8452-01	59.51	3.723	.4230	557.7	.9080-03	.1014-02
39	.85400	512.79	26.000	.4694-01	.5676-01	.6339-01	59.59	2.797	.4222	556.8	.5812-03	.7609-03
39	.85400	517.49	27.000	.3778-01	.4568-01	.5100-01	59.70	2.256	.4212	555.5	.5482-03	.6122-03
39	.85400	514.51	28.000	.5555-01	.6711-01	.7490-01	59.90	3.327	.4194	553.0	.8056-03	.8991-03
39	.85400	506.42	29.000	.6048-01	.7301-01	.8145-01	60.10	3.635	.4174	550.5	.8765-03	.9778-03
39	.86200	427.05	30.000	.6102-02	.7362-02	.8210-02	60.28	3.678	.4158	548.3	.8839-04	.9857-04
39	.86200	438.95	31.000	.1716-01	.2074-01	.2315-01	59.74	1.025	.4209	555.0	.2489-03	.2779-03
39	.86200	451.59	32.000	.6121-01	.7407-01	.8277-01	59.40	3.636	.4241	559.2	.8889-03	.9932-03
39	.86200	478.95	34.000	.7255-01	.8780-01	.9812-01	59.37	4.307	.4243	559.5	.1054-02	.1177-02
39	.86200	488.55	35.000	.6962-01	.8423-01	.9411-01	59.44	4.138	.4237	558.7	.1011-02	.1129-02
39	.86200	498.45	36.000	.5391-01	.6522-01	.7287-01	59.48	3.207	.4233	558.2	.7828-03	.8745-03
39	.86200	507.16	37.000	.4135-01	.5000-01	.5585-01	59.59	2.464	.4223	556.8	.6001-03	.6703-03
39	.86200	515.29	38.000	.3273-01	.3957-01	.4418-01	59.69	1.954	.4213	555.6	.4749-03	.5303-03
39	.86200	521.19	39.000	.2570-01	.3106-01	.3468-01	59.76	1.536	.4206	554.7	.3728-03	.4162-03
39	.86200	520.43	40.000	.3559-01	.4300-01	.4799-01	59.90	2.132	.4193	553.0	.5161-03	.5761-03
39	.86200	512.69	41.000	.4519-01	.5455-01	.6086-01	60.08	2.715	.4176	550.7	.6549-03	.7307-03
39	.87200	428.93	42.000	.8188-02	.9887-02	.1103-01	60.06	.4918	.4178	550.9	.1187-03	.1324-03
39	.87200	441.15	43.000	.1874-01	.2266-01	.2530-01	59.72	1.119	.4210	555.2	.2719-03	.3036-03
39	.87200	452.74	44.000	.6067-01	.7339-01	.8199-01	59.49	3.609	.4232	558.0	.8808-03	.9840-03
39	.87200	466.33	45.000	.9734-01	.1178	.1316	59.45	5.788	.4235	558.5	.1413-02	.1579-02
39	.87200	479.54	46.000	.6657-01	.8054-01	.8999-01	59.44	3.957	.4237	558.7	.9666-03	.1080-02
39	.87200	489.71	47.000	.5000-01	.6049-01	.6757-01	59.51	2.976	.4230	557.8	.7259-03	.8109-03
39	.87200	499.35	48.000	.3662-01	.4429-01	.4946-01	59.59	2.182	.4223	556.8	.5315-03	.5937-03
39	.87200	508.42	49.000	.2608-01	.3153-01	.3520-01	59.70	1.557	.4212	555.5	.3784-03	.4225-03
39	.87200	516.86	50.000	.2297-01	.2776-01	.3099-01	59.75	1.372	.4207	554.8	.3332-03	.3720-03
39	.87200	524.20	51.000	.2110-01	.2549-01	.2845-01	59.85	1.263	.4198	553.6	.3060-03	.3416-03
39	.87200	524.50	52.000	.2237-01	.2702-01	.3015-01	59.97	1.342	.4186	552.0	.3244-03	.3620-03
39	.87200	518.62	53.000	.2023-01	.2441-01	.2722-01	60.29	1.220	.4156	548.1	.2930-03	.3268-03
39	.88100	467.72	58.000	.9957-01	.1208	.1353	58.58	5.833	.4317	569.3	.1449-02	.1623-02
39	.88100	501.33	61.000	.1267-01	.1529-01	.1706-01	60.09	.7612	.4175	550.6	.1836-03	.2048-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

(RAG003)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
41	4.957	5.280	32.50	.0000	407.4	1320.	322.6	.5489	204.4	.2253-03	3700.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
41	.0000	.3264										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.950
41	.83500	437.62	1.0000	.9379-02	.1127-01	.1254-01	62.65	.5876	.4049	544.3	.1371-03	.1525-03
41	.83500	451.57	2.0000	.6669-02	.8025-02	.8934-02	62.26	.4152	.4084	549.1	.9761-04	.1087-03
41	.83500	463.35	3.0000	.3186-01	.3837-01	.4274-01	62.01	1.976	.4107	552.1	.4667-03	.5198-03
41	.83500	474.41	4.0000	.6142-01	.7399-01	.8242-01	61.95	3.805	.4113	552.9	.8998-03	.1002-02
41	.83500	485.17	5.0000	.9353-01	.1127	.1256	61.88	5.788	.4119	553.8	.1371-02	.1527-02
41	.83500	497.18	7.0000	.9526-01	.1147	.1277	62.18	5.923	.4092	550.1	.1395-02	.1553-02
41	.83500	495.98	8.0000	.9220-01	.1109	.1234	62.49	5.761	.4064	546.3	.1349-02	.1501-02
41	.84300	434.29	9.0000	.1108	.1334	.1486	61.98	6.867	.4110	552.5	.1623-02	.1808-02
41	.84300	446.10	10.000	.1451-01	.1747-01	.1946-01	62.13	.9017	.4097	550.7	.2125-03	.2366-03
41	.84300	459.73	11.000	.2678-01	.3228-01	.3597-01	61.77	1.654	.4129	555.1	.3925-03	.4374-03
41	.84300	472.01	12.000	.4568-01	.5508-01	.6139-01	61.69	2.818	.4136	556.1	.6697-03	.7465-03
41	.84300	482.44	13.000	.3986-01	.4804-01	.5354-01	61.76	2.461	.4131	555.3	.5842-03	.6511-03
41	.84300	492.89	14.000	.4481-01	.5401-01	.6018-01	61.79	2.769	.4127	554.9	.6567-03	.7318-03
41	.84300	501.43	15.000	.6939-01	.8359-01	.9311-01	61.95	4.298	.4113	553.0	.1017-02	.1132-02
41	.84300	508.10	16.000	.9887-01	.1191	.1327	61.89	6.119	.4118	553.6	.1449-02	.1614-02
41	.84300	510.38	17.000	.1045	.1258	.1401	62.17	6.497	.4093	550.2	.1530-02	.1704-02
41	.84300	504.13	18.000	.7588-01	.9126-01	.1016	62.45	4.739	.4067	546.7	.1110-02	.1235-02
41	.85400	437.47	19.000	.4784-02	.5755-02	.6405-02	62.35	.2983	.4076	548.0	.7000-04	.7792-04
41	.85400	449.66	20.000	.1858-01	.2238-01	.2493-01	61.93	1.150	.4115	553.2	.2722-03	.3032-03
41	.85400	462.41	21.000	.3933-01	.4742-01	.5285-01	61.69	2.426	.4137	556.1	.5766-03	.6427-03
41	.85400	475.11	22.000	.5625-01	.6782-01	.7560-01	61.64	3.467	.4142	556.8	.8247-03	.9193-03
41	.85400	485.84	23.000	.3919-01	.4725-01	.5266-01	61.71	2.418	.4135	555.9	.5745-03	.6403-03

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OH110, MODEL 60-O, QMS POD

(RAG003)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
41	.85400	495.69	24.000	.3541-01	.4268-01	.4757-01	61.76	2.187	.4130	555.2	.5190-03	.5784-03
41	.85400	504.61	25.000	.3843-01	.4631-01	.5161-01	61.83	2.376	.4124	554.4	.5632-03	.6275-03
41	.85400	512.79	26.000	.4269-01	.5143-01	.5729-01	61.93	2.644	.4115	553.2	.6254-03	.6967-03
41	.85400	517.49	27.000	.4168-01	.5019-01	.5589-01	62.06	2.586	.4103	551.6	.6104-03	.6798-03
41	.85400	514.51	28.000	.5460-01	.6570-01	.7314-01	62.27	3.400	.4083	548.9	.7992-03	.8897-03
41	.85400	506.42	29.000	.5565-01	.6692-01	.7446-01	62.50	3.478	.4062	546.1	.8141-03	.9058-03
41	.86200	427.05	30.000	.2722-02	.3271-02	.3637-02	62.76	.1708	.4039	542.9	.3979-04	.4425-04
41	.86200	438.95	31.000	.6583-02	.7924-02	.8824-02	62.16	.4092	.4094	550.3	.9638-04	.1073-03
41	.86200	451.59	32.000	.2473-01	.2981-01	.3322-01	61.76	1.527	.4130	555.2	.3625-03	.4039-03
41	.86200	478.95	34.000	.5532-01	.6670-01	.7434-01	61.69	3.413	.4137	556.1	.8110-03	.9040-03
41	.86200	488.55	35.000	.3988-01	.4807-01	.5358-01	61.76	2.463	.4130	555.3	.5846-03	.6515-03
41	.86200	498.45	36.000	.3223-01	.3885-01	.4329-01	61.77	1.991	.4129	555.1	.4724-03	.5264-03
41	.86200	507.16	37.000	.2973-01	.3582-01	.3991-01	61.91	1.841	.4116	553.4	.4357-03	.4853-03
41	.86200	515.29	38.000	.2601-01	.3133-01	.3490-01	62.00	1.613	.4108	552.2	.3810-03	.4244-03
41	.86200	521.19	39.000	.2345-01	.2824-01	.3145-01	62.11	1.457	.4098	550.9	.3435-03	.3825-03
41	.86200	520.43	40.000	.3491-01	.4201-01	.4677-01	62.47	2.174	.4084	549.0	.5110-03	.5688-03
41	.86200	512.69	41.000	.4397-01	.5289-01	.5885-01	62.47	2.747	.4065	546.4	.6433-03	.7159-03
41	.87200	428.93	42.000	.3883-02	.4669-02	.5195-02	62.52	.2428	.4061	545.9	.5680-04	.6320-04
41	.87200	441.15	43.000	.6956-02	.8374-02	.9325-02	62.13	.4321	.4097	550.7	.1018-03	.1134-03
41	.87200	452.74	44.000	.2398-01	.2889-01	.3219-01	61.87	1.483	.4121	553.9	.3513-03	.3914-03
41	.87200	466.33	45.000	.5671-01	.6835-01	.7617-01	61.78	3.504	.4128	555.0	.8312-03	.9262-03
41	.87200	479.54	46.000	.5664-01	.6827-01	.7608-01	61.75	3.497	.4131	555.3	.8301-03	.9251-03
41	.87200	489.71	47.000	.3520-01	.4242-01	.4726-01	61.81	2.175	.4126	554.7	.5158-03	.5748-03
41	.87200	499.35	48.000	.2454-01	.2957-01	.3294-01	61.89	1.519	.4118	553.6	.3996-03	.4006-03
41	.87200	508.42	49.000	.2010-01	.2421-01	.2697-01	61.99	1.246	.4109	552.4	.2844-03	.3280-03
41	.87200	516.86	50.000	.1979-01	.2383-01	.2654-01	62.06	1.228	.4103	551.6	.2898-03	.3227-03
41	.87200	524.20	51.000	.1531-01	.1843-01	.2052-01	62.20	.9522	.4090	549.8	.2241-03	.2495-03
41	.87200	524.50	52.000	.1998-01	.2404-01	.2676-01	62.31	1.245	.4080	548.4	.2824-03	.3255-03
41	.87200	518.62	53.000	.1296-01	.1558-01	.1733-01	62.66	.8121	.4047	544.1	.1895-03	.2108-03
41	.88100	467.72	58.000	.6416-01	.7734-01	.8620-01	61.73	3.961	.4133	555.6	.9405-03	.1048-02
41	.88100	501.33	61.000	.1059-01	.1274-01	.1418-01	62.37	.6606	.4074	547.7	.1550-03	.1725-03

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OH110, MODEL 60-O, OMS POD

(RAG003)

OMS POD (60-O)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
43	5.087	5.280	34.10	.0000	405.6	1295.	316.2	.5473	200.4	.2292-03	3664.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3253
43	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
43	.83500	437.62	1.0000	.6418-02	.7751-02	.8650-02	59.75	.3834	.4188	551.9	.9328-04	.1041-03
43	.83500	451.57	2.0000	.2126-02	.2573-02	.2871-02	59.41	.1263	.4220	556.1	.3093-04	.3454-04
43	.83500	463.35	3.0000	.2121-01	.2567-01	.2868-01	59.18	1.255	.4241	559.0	.3089-03	.3451-03
43	.83500	474.41	4.0000	.3872-01	.4686-01	.5237-01	59.14	2.290	.4245	559.5	.5638-03	.6300-03
43	.83500	485.17	5.0000	.6882-01	.8331-01	.9311-01	59.08	4.066	.4251	560.2	.1002-02	.1120-02
43	.83500	497.18	7.0000	.1110	.1342	.1499	59.34	6.585	.4226	557.0	.1615-02	.1804-02
43	.83500	495.98	8.0000	.8544-01	.1032	.1152	59.61	5.093	.4200	553.6	.1242-02	.1387-02
43	.84300	434.29	9.0000	.1083	.1311	.1465	59.17	6.410	.4242	559.0	.1577-02	.1762-02
43	.84300	446.10	10.000	.7579-02	.9169-02	.1024-01	59.26	.4492	.4233	557.9	.1103-03	.1232-03
43	.84300	459.73	11.000	.1746-01	.2115-01	.2365-01	58.95	1.030	.4263	561.8	.2544-03	.2945-03
43	.84300	472.01	12.000	.3732-01	.4521-01	.5055-01	58.91	2.199	.4267	562.3	.5438-03	.6081-03
43	.84300	482.44	13.000	.2984-01	.3614-01	.4040-01	58.97	1.760	.4261	561.6	.4348-03	.4861-03
43	.84300	492.89	14.000	.2576-01	.3119-01	.3486-01	59.01	1.520	.4258	561.1	.3752-03	.4194-03
43	.84300	501.43	15.000	.3871-01	.4685-01	.5236-01	59.13	2.289	.4246	559.6	.5636-03	.6299-03
43	.84300	508.10	16.000	.7471-01	.9043-01	.1011	59.11	4.415	.4248	559.9	.1088-02	.1216-02
43	.84300	510.38	17.000	.1049	.1269	.1417	59.36	6.228	.4225	556.7	.1527-02	.1705-02
43	.84300	504.13	18.000	.6804-01	.8222-01	.9179-01	59.60	4.055	.4202	553.8	.9894-03	.1105-02
43	.85400	437.47	19.000	.7543-03	.9118-03	.1018-02	59.48	.4487-01	.4213	555.2	.1097-04	.1225-04
43	.85400	449.66	20.000	.1077-01	.1304-01	.1457-01	59.10	.6366	.4249	559.9	.1569-03	.1753-03
43	.85400	462.41	21.000	.2562-01	.3104-01	.3470-01	58.90	1.509	.4268	562.4	.3734-03	.4175-03
43	.85400	475.11	22.000	.4778-01	.5788-01	.6472-01	58.86	2.812	.4272	563.0	.6963-03	.7786-03
43	.85400	485.84	23.000	.3555-01	.4306-01	.4814-01	58.93	2.095	.4265	562.1	.5180-03	.5791-03

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OH110, MODEL 60-0, OMS POD

(RAG003)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
43	.85400	495.69	24.000	.2331-01	.2823-01	.3156-01	59.00	1.376	.4258	561.2	.3396-03	.3796-03
43	.85400	504.61	25.000	.1609-01	.1948-01	.2177-01	59.08	.9506	.4251	560.2	.2343-03	.2619-03
43	.85400	512.79	26.000	.1805-01	.2185-01	.2441-01	59.18	1.068	.4242	559.0	.2628-03	.2937-03
43	.85400	517.49	27.000	.3242-01	.3922-01	.4381-01	59.29	1.922	.4231	557.6	.4719-03	.5271-03
43	.85400	514.51	28.000	.5197-01	.6283-01	.7016-01	59.47	3.091	.4214	555.3	.7561-03	.8443-03
43	.85400	506.42	29.000	.4757-01	.5747-01	.6415-01	59.66	2.838	.4196	553.0	.6916-03	.7720-03
43	.86200	427.05	30.000	.1201-02	.1450-02	.1618-02	59.84	.7185-01	.4179	550.8	.1745-04	.1947-04
43	.86200	438.95	31.000	.2245-02	.2715-02	.3033-02	59.32	.1332	.4228	557.2	.3267-04	.3650-04
43	.86200	451.59	32.000	.1477-01	.1789-01	.2000-01	58.96	.8711	.4262	561.7	.2152-03	.2406-03
43	.86200	478.95	34.000	.5035-01	.6099-01	.6819-01	58.93	2.968	.4265	562.0	.7337-03	.8203-03
43	.86200	488.55	35.000	.4001-01	.4845-01	.5417-01	58.99	2.360	.4259	561.3	.5829-03	.6516-03
43	.86200	498.45	36.000	.2819-01	.3414-01	.3816-01	59.03	1.664	.4256	560.8	.4107-03	.4591-03
43	.86200	507.16	37.000	.1883-01	.2278-01	.2546-01	59.17	1.114	.4242	559.0	.2741-03	.3063-03
43	.86200	515.29	38.000	.1199-01	.1450-01	.1620-01	59.26	.7104	.4234	558.0	.1745-03	.1950-03
43	.86200	521.19	39.000	.1348-01	.1630-01	.1821-01	59.34	.7998	.4226	556.9	.1961-03	.2191-03
43	.86200	520.43	40.000	.3115-01	.3766-01	.4205-01	59.47	1.852	.4214	555.3	.4531-03	.5060-03
43	.86200	512.69	41.000	.4051-01	.4894-01	.5463-01	59.64	2.416	.4198	553.2	.5890-03	.6574-03
43	.87200	428.93	42.000	.2368-02	.2861-02	.3193-02	59.63	.1412	.4198	553.3	.3443-04	.3843-04
43	.87200	441.15	43.000	.4738-02	.5731-02	.6402-02	59.29	.2809	.4231	557.6	.6896-04	.7703-04
43	.87200	452.74	44.000	.1569-01	.1900-01	.2123-01	59.06	.9269	.4252	560.4	.2286-03	.2555-03
43	.87200	466.33	45.000	.4282-01	.5185-01	.5797-01	58.97	2.525	.4261	561.5	.6238-03	.6974-03
43	.87200	479.54	46.000	.5028-01	.6089-01	.6807-01	58.98	2.966	.4260	561.5	.7325-03	.8189-03
43	.87200	489.71	47.000	.3630-01	.4395-01	.4913-01	59.05	2.144	.4254	560.6	.5288-03	.5910-03
43	.87200	499.35	48.000	.2487-01	.3011-01	.3364-01	59.13	1.471	.4246	559.6	.3622-03	.4048-03
43	.87200	508.42	49.000	.1920-01	.2323-01	.2595-01	59.24	1.137	.4236	558.2	.2795-03	.3123-03
43	.87200	516.86	50.000	.1545-01	.1868-01	.2087-01	59.31	.9160	.4229	557.4	.2248-03	.2511-03
43	.87200	524.20	51.000	.9990-02	.1208-01	.1349-01	59.41	.5935	.4219	556.1	.1453-03	.1623-03
43	.87200	524.50	52.000	.1788-01	.2162-01	.2413-01	59.53	1.065	.4209	554.7	.2601-03	.2904-03
43	.87200	518.62	53.000	.1399-01	.1689-01	.1884-01	59.84	.8369	.4180	550.8	.2032-03	.2268-03
43	.88100	467.72	58.000	.5200-01	.6298-01	.7041-01	58.95	3.065	.4263	561.8	.7576-03	.8470-03
43	.88100	501.33	61.000	.1115-01	.1348-01	.1505-01	59.58	.6646	.4204	554.0	.1622-03	.1811-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0

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(RAG004)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
60	3.681	7.300	20.00	.0000	690.9	1313.	321.0	.1255	114.7	.9179-04	3833.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
60	.0000	.2157

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
60	.83500	437.62	1.0000	.4450-01	.5362-01	.5975-01	40.69	1.811	.4121	551.3	.1022-02	.1138-02
60	.83500	451.57	2.0000	.1812	.2183	.2433	40.65	7.364	.4126	552.0	.4159-02	.4634-02
60	.83500	463.35	3.0000	.1969	.2373	.2644	40.64	8.002	.4127	552.1	.4520-02	.5037-02
60	.83500	474.41	4.0000	.1002	.1207	.1345	40.66	4.073	.4125	551.8	.2300-02	.2562-02
60	.83500	485.17	5.0000	.3821-01	.4604-01	.5130-01	40.66	1.554	.4125	551.7	.8771-03	.9773-03
60	.83500	497.18	7.0000	.1063-01	.1281-01	.1427-01	40.70	.4327	.4119	551.1	.2440-03	.2719-03
60	.83500	495.98	8.0000	.8458-02	.1019-01	.1135-01	40.73	.3445	.4115	550.4	.1941-03	.2162-03
60	.84300	434.29	9.0000	.5372-01	.6474-01	.7213-01	40.68	2.185	.4122	551.4	.1233-02	.1374-02
60	.84300	446.10	10.000	.1777	.2141	.2386	40.65	7.221	.4127	552.1	.4079-02	.4545-02
60	.84300	459.73	11.000	.1700	.2049	.2283	40.61	6.903	.4131	552.6	.3903-02	.4349-02
60	.84300	472.01	12.000	.1644	.1982	.2209	40.62	6.679	.4130	552.5	.3775-02	.4207-02
60	.84300	482.44	13.000	.1659	.1999	.2228	40.64	6.741	.4128	552.2	.3809-02	.4244-02
60	.84300	492.89	14.000	.1293	.1558	.1736	40.65	5.255	.4126	552.0	.2988-02	.3307-02
60	.84300	501.43	15.000	.4900-01	.5905-01	.6579-01	40.67	1.993	.4123	551.5	.1125-02	.1253-02
60	.84300	508.10	16.000	.2048-01	.2468-01	.2750-01	40.69	.8334	.4121	551.2	.4701-03	.5238-03
60	.84300	510.38	17.000	.1426-01	.1718-01	.1914-01	40.75	.5812	.4112	550.2	.3273-03	.3646-03
60	.84300	504.13	18.000	.8776-02	.1057-01	.1178-01	40.75	.3576	.4113	550.2	.2014-03	.2244-03
60	.85400	437.47	19.000	.5977-01	.7205-01	.8029-01	40.62	2.428	.4131	552.6	.1372-02	.1530-02
60	.85400	449.66	20.000	.1274	.1536	.1712	40.58	5.169	.4136	553.3	.2926-02	.3261-02
60	.85400	462.41	21.000	.1079	.1301	.1450	40.56	4.376	.4140	553.7	.2478-02	.2762-02
60	.85400	475.11	22.000	.9416-01	.1135	.1265	40.56	3.819	.4139	553.7	.2163-02	.2411-02
60	.85400	485.64	23.000	.7453-01	.8986-01	.1002	40.58	3.025	.4136	553.3	.1712-02	.1908-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
60	.85400	495.69	24.000	.9863-01	.1189	.1325	40.60	4.004	.4133	552.9	.2265-02	.2524-02
60	.85400	504.61	25.000	.9559-01	.1152	.1284	40.62	3.882	.4131	552.6	.2195-02	.2446-02
60	.85400	512.79	26.000	.3324-01	.4006-01	.4464-01	40.63	1.350	.4129	552.3	.7631-03	.8504-03
60	.85400	517.49	27.000	.1328-01	.1601-01	.1784-01	40.65	.5399	.4127	552.0	.3050-03	.3398-03
60	.85400	514.51	28.000	.1321-01	.1592-01	.1774-01	40.67	.5373	.4123	551.5	.3033-03	.3379-03
60	.85400	506.42	29.000	.8996-02	.1084-01	.1208-01	40.70	.3662	.4119	551.0	.2065-03	.2301-03
60	.86200	427.05	30.000	.2103-01	.2534-01	.2824-01	40.64	.8547	.4127	552.1	.4828-03	.5380-03
60	.86200	438.95	31.000	.4451-01	.5366-01	.5980-01	40.59	1.807	.4135	553.1	.1022-02	.1139-02
60	.86200	451.59	32.000	.1142	.1377	.1535	40.56	4.632	.4139	553.7	.2623-02	.2923-02
60	.86200	478.95	34.000	.5781-01	.6970-01	.7769-01	40.57	2.345	.4137	553.4	.1328-02	.1480-02
60	.86200	488.55	35.000	.4488-01	.5410-01	.6030-01	40.59	1.822	.4135	553.1	.1031-02	.1149-02
60	.86200	498.45	36.000	.4398-01	.5302-01	.5910-01	40.60	1.786	.4134	553.0	.1010-02	.1126-02
60	.86200	507.16	37.000	.6094-01	.7345-01	.8185-01	40.62	2.475	.4130	552.5	.1399-02	.1559-02
60	.86200	515.29	38.000	.4627-01	.5576-01	.6213-01	40.65	1.881	.4126	551.9	.1062-02	.1184-02
60	.86200	521.19	39.000	.1619-01	.1951-01	.2174-01	40.66	.6580	.4125	551.9	.3716-03	.4141-03
60	.86200	520.43	40.000	.1436-01	.1730-01	.1928-01	40.67	.5840	.4123	551.5	.3296-03	.3672-03
60	.86200	512.69	41.000	.1151-01	.1387-01	.1545-01	40.70	.4683	.4120	551.1	.2641-03	.2943-03
60	.87200	428.93	42.000	.1600-01	.1928-01	.2149-01	40.62	.6497	.4131	552.6	.3673-03	.4093-03
60	.87200	441.15	43.000	.4473-01	.5392-01	.6010-01	40.59	1.816	.4134	553.0	.1027-02	.1145-02
60	.87200	452.74	44.000	.1127	.1359	.1514	40.56	4.570	.4139	553.6	.2588-02	.2881-02
60	.87200	466.33	45.000	.1954-01	.2354-01	.2623-01	40.72	.7958	.4116	550.6	.4485-03	.4997-03
60	.87200	479.54	46.000	.5131-01	.6187-01	.6996-01	40.57	2.082	.4138	553.5	.1178-02	.1314-02
60	.87200	489.71	47.000	.3166-01	.3817-01	.4255-01	40.58	1.285	.4136	553.2	.7271-03	.8104-03
60	.87200	499.35	48.000	.2305-01	.2778-01	.3096-01	40.61	.9361	.4131	552.6	.5292-03	.5898-03
60	.87200	508.42	49.000	.3837-01	.2890-01	.3220-01	40.64	.9743	.4128	552.2	.5505-03	.6134-03
60	.87200	516.86	50.000	.1873-01	.4625-01	.5153-01	40.65	1.560	.4127	552.0	.8810-03	.9817-03
60	.87200	524.20	51.000	.1167-01	.2257-01	.2517-01	40.67	.7616	.4125	551.8	.4300-03	.4791-03
60	.87200	524.50	52.000	.1154-01	.1406-01	.1567-01	40.66	.4745	.4124	551.6	.2678-03	.2984-03
60	.87200	518.62	53.000	.1154-01	.1390-01	.1549-01	40.73	.4700	.4116	550.6	.2648-03	.2951-03
60	.88100	467.72	58.000	.6504-01	.7842-01	.8741-01	40.56	2.638	.4139	553.7	.1494-02	.1665-02
60	.88100	501.33	61.000	.9705-02	.1169-01	.1302-01	40.76	.3955	.4111	550.0	.2227-03	.2481-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
61	3.721	7.300	25.00	.0000	691.0	1305.	318.8	.1256	114.0	.9247-04	3820.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540	TW=540
61	.0000	.2157	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
61	.83500	437.62	1.0000	.1953-01	.2367-01	.2648-01	39.27	.7671	.4281	568.8	.4487-03	.5019-03
61	.83500	451.57	2.0000	.4547-01	.5513-01	.6167-01	39.21	1.783	.4289	569.9	.1045-02	.1169-02
61	.83500	463.35	3.0000	.2548	.3090	.3457	39.15	9.975	.4298	571.1	.5855-02	.6552-02
61	.83500	474.41	4.0000	.1679	.2036	.2278	39.17	6.576	.4296	570.8	.3859-02	.4317-02
61	.83500	485.17	5.0000	.5620-01	.6814-01	.7624-01	39.17	2.201	.4296	570.8	.1291-02	.1445-02
61	.83500	497.18	7.0000	.1966-01	.2384-01	.2667-01	39.22	.7712	.4288	569.8	.4518-03	.5054-03
61	.83500	495.98	8.0000	.1605-01	.1945-01	.2175-01	39.28	.6302	.4280	568.7	.3686-03	.4122-03
61	.84300	434.29	9.0000	.1860-01	.2254-01	.2521-01	39.26	.7302	.4282	569.0	.4272-03	.4778-03
61	.84300	446.10	10.000	.5663-01	.6867-01	.7683-01	39.19	2.219	.4293	570.4	.1301-02	.1456-02
61	.84300	459.73	11.000	.1192	.1445	.1617	39.15	4.666	.4299	571.2	.2739-02	.3065-02
61	.84300	472.01	12.000	.2149	.2607	.2917	39.13	8.411	.4299	571.4	.4940-02	.5528-02
61	.84300	482.44	13.000	.1371	.1663	.1860	39.15	5.367	.4299	571.1	.3151-02	.3526-02
61	.84300	492.89	14.000	.1051	.1275	.1427	39.15	4.116	.4295	570.7	.2416-02	.2703-02
61	.84300	501.43	15.000	.4669-01	.5662-01	.6335-01	39.17	1.829	.4295	570.2	.1073-02	.1201-02
61	.84300	508.10	16.000	.3086-01	.3742-01	.4186-01	39.20	1.210	.4291	570.2	.7091-03	.7934-03
61	.84300	510.39	17.000	.2395-01	.2902-01	.3246-01	39.27	.9404	.4281	568.9	.5501-03	.6153-03
61	.84300	504.13	18.000	.1538-01	.1863-01	.2084-01	39.28	.6040	.4280	568.7	.3532-03	.3950-03
61	.85400	437.47	19.000	.1899-01	.2299-01	.2570-01	39.46	.7495	.4254	565.2	.4359-03	.4872-03
61	.85400	449.66	20.000	.6433-01	.7791-01	.8711-01	39.40	2.534	.4264	566.5	.1477-02	.1651-02
61	.85400	462.41	21.000	.1259	.1525	.1705	39.35	4.953	.4270	567.3	.2890-02	.3231-02
61	.85400	475.11	22.000	.1567	.1898	.2123	39.35	6.166	.4270	567.4	.3598-02	.4024-02
61	.85400	485.84	23.000	.7669-01	.9290-01	.1039	39.35	3.017	.4270	567.4	.1761-02	.1969-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

(RAG004)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
61	.85400	495.69	24.000	.7066-01	.8559-01	.9570-01	39.37	2.782	.4267	566.9	.1622-02	.1814-02
61	.85400	504.61	25.000	.5640-01	.6831-01	.7637-01	39.40	2.222	.4263	566.5	.1295-02	.1448-02
61	.85400	512.79	26.000	.2941-01	.3561-01	.3981-01	39.42	1.159	.4260	566.1	.6750-03	.7547-03
61	.85400	517.49	27.000	.2148-01	.2601-01	.2908-01	39.44	.8472	.4257	565.7	.4931-03	.5512-03
61	.85400	514.51	28.000	.1997-01	.2417-01	.2702-01	39.48	.7882	.4252	565.0	.4582-03	.5121-03
61	.85400	506.42	29.000	.1386-01	.1678-01	.1875-01	39.52	.5477	.4246	564.2	.3180-03	.3554-03
61	.86200	427.05	30.000	.6559-02	.7939-02	.8872-02	39.52	.2592	.4246	564.2	.1505-03	.1682-03
61	.86200	438.95	31.000	.1554-01	.1862-01	.2103-01	39.43	.6126	.4259	565.9	.3567-03	.3987-03
61	.86200	451.59	32.000	.9134-01	.1106	.1237	39.36	3.595	.4268	567.2	.2097-02	.2345-02
61	.86200	478.95	34.000	.7888-01	.9555-01	.1068	39.36	3.105	.4268	567.1	.1811-02	.2025-02
61	.86200	488.55	35.000	.4848-01	.5874-01	.6568-01	39.35	1.908	.4270	567.4	.1113-02	.1245-02
61	.86200	498.45	36.000	.3676-01	.4452-01	.4978-01	39.37	1.447	.4267	567.0	.8439-03	.9436-03
61	.86200	507.16	37.000	.4102-01	.4968-01	.5554-01	39.39	1.615	.4265	566.7	.9416-03	.1053-02
61	.86200	515.29	38.000	.2748-01	.3328-01	.3720-01	39.43	1.084	.4259	565.9	.6308-03	.7052-03
61	.86200	521.19	39.000	.1854-01	.2245-01	.2509-01	39.44	.7311	.4258	565.7	.4255-03	.4756-03
61	.86200	520.43	40.000	.1934-01	.2342-01	.2618-01	39.46	.7633	.4254	565.3	.4440-03	.4962-03
61	.86200	512.69	41.000	.1555-01	.1883-01	.2104-01	39.51	.6144	.4248	564.4	.3569-03	.3988-03
61	.87200	428.93	42.000	.4786-02	.5794-02	.6475-02	39.49	.1890	.4250	564.7	.1098-03	.1227-03
61	.87200	441.15	43.000	.1680-01	.2035-01	.2275-01	39.41	.6622	.4261	566.2	.3857-03	.4312-03
61	.87200	452.74	44.000	.7858-01	.9519-01	.1064	39.35	3.092	.4270	567.3	.1804-02	.2018-02
61	.87200	466.33	45.000	.2444-01	.2960-01	.3309-01	39.43	.9639	.4258	565.8	.5611-03	.6272-03
61	.87200	479.54	46.000	.5767-01	.6987-01	.7813-01	39.33	2.268	.4272	567.7	.1324-02	.1481-02
61	.87200	489.71	47.000	.3696-01	.4477-01	.5006-01	39.34	1.454	.4271	567.5	.8486-03	.9490-03
61	.87200	499.35	48.000	.2305-01	.2792-01	.3122-01	39.36	.9071	.4268	567.2	.5292-03	.5917-03
61	.87200	508.42	49.000	.2031-01	.2460-01	.2750-01	39.38	.7999	.4265	566.7	.4663-03	.5213-03
61	.87200	516.86	50.000	.2275-01	.2755-01	.3080-01	39.42	.8968	.4260	566.0	.5222-03	.5838-03
61	.87200	524.20	51.000	.1509-01	.1828-01	.2043-01	39.44	.5953	.4257	565.7	.3464-03	.3873-03
61	.87200	524.50	52.000	.1491-01	.1805-01	.2017-01	39.46	.5881	.4255	565.3	.3421-03	.3824-03
61	.87200	518.62	53.000	.1198-01	.1450-01	.1620-01	39.52	.4734	.4246	564.2	.2749-03	.3072-03
61	.88100	467.72	58.000	.9000-01	.1090	.1219	39.32	3.539	.4274	567.9	.2067-02	.2311-02
61	.88100	501.33	61.000	.9302-02	.1128-01	.1262-01	39.17	.3644	.4295	570.7	.2138-03	.2392-03

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(RAG004)

OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
62	3.640	7.300	27.50	.0000	691.7	1323.	323.6	.1256	115.7	.9112-04	3848.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2160										
62	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
62	.83500	437.62	1.0000	.7839-02	.9397-02	.1043-01	42.16	.3305	.3969	535.2	.1800-03	.1998-03
62	.83500	451.57	2.0000	.8021-02	.9618-02	.1068-01	42.10	.3377	.3976	536.2	.1842-03	.2045-03
62	.83500	463.35	3.0000	.3979-01	.4772-01	.5300-01	42.09	1.675	.3979	536.5	.9137-03	.1015-02
62	.83500	474.41	4.0000	.9421-01	.1130	.1255	42.09	3.966	.3977	536.3	.2163-02	.2402-02
62	.83500	485.17	5.0000	.1269	.1521	.1689	42.10	5.341	.3977	536.3	.2913-02	.3235-02
62	.83500	497.18	7.0000	.1955-01	.2344-01	.2602-01	42.16	.8241	.3969	535.2	.4488-03	.4983-03
62	.83500	495.98	8.0000	.2199-01	.2635-01	.2925-01	42.21	.9279	.3962	534.3	.5046-03	.5602-03
62	.84300	434.29	9.0000	.3939-02	.4722-02	.5243-02	42.16	.1660	.3969	535.2	.9042-04	.1004-03
62	.84300	446.10	10.000	.1810-01	.2170-01	.2410-01	42.11	.7621	.3976	536.1	.4156-03	.4615-03
62	.84300	459.73	11.000	.3039-01	.3645-01	.4048-01	42.04	1.278	.3984	537.3	.6979-03	.7751-03
62	.84300	472.01	12.000	.7003-01	.8400-01	.9330-01	42.04	2.945	.3984	537.3	.1608-02	.1786-02
62	.84300	482.44	13.000	.9241-01	.1108	.1231	42.07	3.887	.3981	536.9	.2122-02	.2357-02
62	.84300	492.89	14.000	.9414-01	.1129	.1254	42.08	3.961	.3980	536.6	.2162-02	.2401-02
62	.84300	501.43	15.000	.9754-01	.1170	.1299	42.12	4.108	.3974	535.9	.2240-02	.2487-02
62	.84300	508.10	16.000	.3678-01	.4410-01	.4897-01	42.11	1.549	.3975	536.0	.8444-03	.9377-03
62	.84300	510.38	17.000	.2504-01	.3001-01	.3331-01	42.21	1.057	.3961	534.1	.5746-03	.6379-03
62	.84300	504.13	18.000	.2739-01	.3282-01	.3644-01	42.21	1.156	.3961	534.1	.6286-03	.6978-03
62	.85400	437.47	19.000	.6949-02	.8330-02	.9250 02	42.14	.2928	.3972	535.6	.1595-03	.1771-03
62	.85400	449.66	20.000	.1806-01	.2166-01	.2405-01	42.08	.7600	.3980	536.6	.4147-03	.4606-03
62	.85400	462.41	21.000	.3828-01	.4591-01	.5099-01	42.04	1.609	.3984	537.3	.8790-03	.9763-03
62	.85400	475.11	22.000	.7625-01	.9145-01	.1016	42.04	3.205	.3985	537.3	.1751-02	.1945-02
62	.85400	485.84	23.000	.9370-01	.1124	.1248	42.07	3.942	.3981	536.9	.2152-02	.2390-02

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
62	.85400	495.69	24.000	.7253-01	.8698-01	.9660-01	3.052	.3980	536.7	.1665-02	.1850-02
62	.85400	504.61	25.000	.6582-01	.7905-01	.8778-01	2.775	.3977	536.2	.1514-02	.1681-02
62	.85400	512.79	26.000	.4580-01	.5491-01	.6098-01	1.929	.3974	535.8	.1052-02	.1168-02
62	.85400	517.49	27.000	.1848-01	.2215-01	.2460-01	.7788	.3970	535.4	.4242-03	.4710-03
62	.85400	514.51	28.000	.2423-01	.2905-01	.3225-01	1.022	.3965	534.6	.5562-03	.6175-03
62	.85400	506.42	29.000	.2459-01	.2946-01	.3271-01	1.038	.3959	533.8	.5642-03	.6263-03
62	.86200	427.05	30.000	.2207-02	.2646-02	.2937-02	.9310-01	.3966	534.8	.5066-04	.5625-04
62	.86200	438.95	31.000	.6483-02	.7773-02	.8632-02	.2729	.3977	536.2	.1488-03	.1653-03
62	.86200	451.59	32.000	.1086-01	.1302-01	.1446-01	.4565	.3984	537.2	.2493-03	.2789-03
62	.86200	478.95	34.000	.5985-01	.7179-01	.7974-01	2.516	.3986	537.5	.1375-02	.1527-02
62	.86200	488.55	35.000	.6375-01	.7645-01	.8491-01	2.681	.3982	536.9	.1464-02	.1626-02
62	.86200	498.45	36.000	.4932-01	.5915-01	.6570-01	2.075	.3982	536.3	.1133-02	.1258-02
62	.86200	507.16	37.000	.3816-01	.4575-01	.5081-01	1.606	.3977	535.6	.8761-03	.9730-03
62	.86200	515.29	38.000	.3264-01	.3913-01	.4345-01	1.375	.3972	535.2	.7492-03	.8320-03
62	.86200	521.19	39.000	.1869-01	.2240-01	.2487-01	.7877	.3969	534.7	.4289-03	.4763-03
62	.86200	520.43	40.000	.1846-01	.2213-01	.2457-01	.7788	.3965	533.8	.4238-03	.4705-03
62	.86200	512.69	41.000	.2248-01	.2693-01	.2990-01	.9491	.3959	535.5	.5158-03	.5726-03
62	.87200	428.93	42.000	.2717-02	.3257-02	.3617-02	.1145	.3971	537.1	.6237-04	.6925-04
62	.87200	441.15	43.000	.6686-02	.8017-02	.8904-02	.2814	.3977	536.3	.1535-03	.1705-03
62	.87200	452.74	44.000	.1250-01	.1500-01	.1666-01	.5258	.3983	537.1	.2871-03	.3189-03
62	.87200	466.33	45.000	.1484-01	.1778-01	.1974-01	.6262	.3983	534.4	.3406-03	.3781-03
62	.87200	479.54	46.000	.5391-01	.6466-01	.7182-01	2.266	.3985	537.3	.1238-02	.1375-02
62	.87200	489.71	47.000	.3782-01	.4535-01	.5037-01	1.590	.3983	537.1	.8684-03	.9646-03
62	.87200	499.35	48.000	.3344-01	.4010-01	.4454-01	1.408	.3977	536.3	.7679-03	.8528-03
62	.87200	508.42	49.000	.2270-01	.2721-01	.3022-01	.9559	.3975	536.0	.5211-03	.5787-03
62	.87200	516.86	50.000	.2102-01	.2520-01	.2799-01	.8857	.3973	535.7	.4826-03	.5359-03
62	.87200	524.20	51.000	.1547-01	.1855-01	.2059-01	.6524	.3967	534.9	.3551-03	.3943-03
62	.87200	524.50	52.000	.1294-01	.1551-01	.1723-01	.5459	.3966	534.8	.2971-03	.3299-03
62	.87200	518.62	53.000	.1149-01	.1377-01	.1528-01	.4853	.3957	533.5	.2636-03	.2926-03
62	.88100	467.72	58.000	.6821-01	.8182-01	.9088-01	2.867	.3987	537.6	.1567-02	.1740-02
62	.88100	501.33	61.000	.1037-01	.1243-01	.1380-01	.4372	.3967	534.9	.2380-03	.2642-03

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(RAG0004)

OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
63	3.740	7.300	30.00	.0000	692.3	1303.	318.2	.1258	113.8	.9284-04	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
63	.0000	.2158

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
63	.83500	437.62	1.0000	.3131-02	.3777-02	.4211-02	40.17	.1258	.4148	550.0	.7148-04	.7969-04
63	.83500	451.57	2.0000	-.5452-03	-.6578-03	-.7335-03	40.13	-.2188-01	.4154	550.9	-.1245-04	-.1388-04
63	.83500	463.35	3.0000	.1281-01	.1545-01	.1723-01	40.09	.5134	.4159	551.6	.2924-03	.3261-03
63	.83500	474.41	4.0000	.2796-01	.3374-01	.3762-01	40.10	1.121	.4158	551.4	.6385-03	.7120-03
63	.83500	485.17	5.0000	.3471-01	.4188-01	.4670-01	40.11	1.392	.4157	551.2	.7925-03	.8838-03
63	.83500	497.18	7.0000	.4061-01	.4898-01	.5461-01	40.17	1.631	.4148	550.1	.9271-03	.1034-02
63	.83500	495.98	8.0000	.3699-01	.4460-01	.4972-01	40.21	1.487	.4142	549.3	.8442-03	.9410-03
63	.84300	434.29	9.0000	.1789-02	.2158-02	.2406-02	40.17	.7189-01	.4148	550.0	.4085-04	.4554-04
63	.84300	446.10	10.0000	.4078-02	.4919-02	.5485-02	40.12	.1636	.4155	551.1	.9310-04	.1038-03
63	.84300	459.73	11.0000	.5100-02	.6154-02	.6863-02	40.07	.2043	.4163	552.0	.1165-03	.1299-03
63	.84300	472.01	12.0000	.1342-01	.1620-01	.1806-01	40.06	.5377	.4163	552.1	.3065-03	.3418-03
63	.84300	482.44	13.0000	.1446-01	.1745-01	.1946-01	40.08	.5797	.4161	551.7	.3303-03	.3683-03
63	.84300	492.89	14.0000	.1771-01	.2137-01	.2383-01	40.09	.7101	.4159	551.5	.4044-03	.4510-03
63	.84300	501.43	15.0000	.2520-01	.3040-01	.3390-01	40.13	1.011	.4154	550.9	.5753-03	.6415-03
63	.84300	508.10	16.0000	.5823-01	.7024-01	.7832-01	40.14	2.337	.4153	550.7	.1329-02	.1482-02
63	.84300	510.38	17.0000	.4434-01	.5347-01	.5961-01	40.21	1.783	.4142	549.3	.1012-02	.1128-02
63	.84300	504.13	18.0000	.3581-01	.4317-01	.4812-01	40.23	1.441	.4139	548.9	.8171-03	.9108-03
63	.85400	437.47	19.0000	.1841-02	.2217-02	.2470-02	40.42	.7440-01	.4113	545.4	.4197-04	.4675-04
63	.85400	449.66	20.0000	.7594-02	.9151-02	.1020-01	40.35	.3065	.4121	546.5	.1732-03	.1930-03
63	.85400	462.41	21.0000	.6578-02	.7927-02	.8833-02	40.33	.2653	.4126	547.1	.1501-03	.1672-03
63	.85400	475.11	22.0000	.1228-01	.1480-01	.1649-01	40.33	.4952	.4126	547.2	.2801-03	.3122-03
63	.85400	485.84	23.0000	.1636-01	.1971-01	.2196-01	40.35	.6600	.4123	546.8	.3731-03	.4157-03

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
63	.85400	495.69	24.000	.2117-01	.2551-01	.2842-01	40.36	.8544	.4121	546.6	.4829-03	.5380-03
63	.85400	504.61	25.000	.2624-01	.3162-01	.3522-01	40.39	1.060	.4118	546.1	.5985-03	.6668-03
63	.85400	512.79	26.000	.3096-01	.3729-01	.4155-01	40.40	1.251	.4115	545.8	.7059-03	.7864-03
63	.85400	517.49	27.000	.3159-01	.3806-01	.4239-01	40.43	1.277	.4112	545.3	.7204-03	.8025-03
63	.85400	514.51	28.000	.2823-01	.3399-01	.3786-01	40.47	1.142	.4106	544.4	.6435-03	.7167-03
63	.85400	506.42	29.000	.2696-01	.3246-01	.3614-01	40.51	1.092	.4100	543.7	.6145-03	.6843-03
63	.86200	427.05	30.000	.9998-03	.1204-02	.1341-02	40.46	.4045-01	.4107	544.7	.2280-04	.2539-04
63	.86200	438.95	31.000	.2086-02	.2514-02	.2801-02	40.38	.8426-01	.4118	546.1	.4759-04	.5302-04
63	.86200	451.59	32.000	.7498-02	.9037-02	.1007-01	40.33	.3024	.4126	547.1	.1711-03	.1906-03
63	.86200	478.95	34.000	.2150-01	.2591-01	.2887-01	40.34	.8673	.4125	547.0	.4905-03	.5465-03
63	.86200	488.55	35.000	.1707-01	.2058-01	.2293-01	40.35	.6890	.4123	546.8	.3895-03	.4340-03
63	.86200	498.45	36.000	.1810-01	.2181-01	.2430-01	40.35	.7302	.4123	546.8	.4128-03	.4600-03
63	.86200	507.16	37.000	.2311-01	.2784-01	.3101-01	40.38	.9331	.4118	546.1	.5270-03	.5871-03
63	.86200	515.29	38.000	.2153-01	.2593-01	.2889-01	40.42	.8702	.4113	545.4	.4909-03	.5469-03
63	.86200	521.19	39.000	.2342-01	.2821-01	.3142-01	40.43	.9469	.4111	545.2	.5340-03	.5949-03
63	.86200	520.43	40.000	.2026-01	.2440-01	.2717-01	40.45	.8195	.4107	544.7	.4618-03	.5144-03
63	.86200	512.69	41.000	.2369-01	.2853-01	.3177-01	40.51	.9597	.4101	543.8	.5401-03	.6014-03
63	.87200	428.93	42.000	.1033-02	.1244-02	.1386-02	40.43	.4176-01	.4112	545.2	.2355-04	.2624-04
63	.87200	441.15	43.000	.2572-02	.3099-02	.3452-02	40.38	.1038	.4119	546.2	.5866-04	.6535-04
63	.87200	452.74	44.000	.8206-02	.9890-02	.1102-01	40.34	.3310	.4125	547.0	.1872-03	.2086-03
63	.87200	466.33	45.000	.4555-02	.5484-02	.6108-02	40.51	.1845	.4100	543.7	.1038-03	.1156-03
63	.87200	479.54	46.000	.2527-01	.3046-01	.3394-01	40.33	1.019	.4126	547.1	.5765-03	.6424-03
63	.87200	489.71	47.000	.1572-01	.1894-01	.2110-01	40.35	.6342	.4123	546.8	.3585-03	.3995-03
63	.87200	499.35	48.000	.1130-01	.1362-01	.1517-01	40.37	.4563	.4120	546.3	.2578-03	.2872-03
63	.87200	508.42	49.000	.1534-01	.1848-01	.2058-01	40.40	.6196	.4116	545.8	.3498-03	.3897-03
63	.87200	516.86	50.000	.1671-01	.2013-01	.2242-01	40.42	.6754	.4114	545.5	.3811-03	.4245-03
63	.87200	524.20	51.000	.1474-01	.1775-01	.1978-01	40.44	.5961	.4110	545.0	.3361-03	.3744-03
63	.87200	524.50	52.000	.1359-01	.1636-01	.1823-01	40.46	.5497	.4107	544.7	.3096-03	.3450-03
63	.87200	518.62	53.000	.1159-01	.1396-01	.1554-01	40.53	.4699	.4097	543.3	.2643-03	.2943-03
63	.88100	467.72	58.000	.3086-01	.3719-01	.4144-01	40.32	1.244	.4127	547.3	.7040-03	.7844-03
63	.88100	501.33	61.000	.4785-02	.5770-02	.6433-02	40.21	.1924	.4143	549.4	.1092-03	.1218-03

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OH110, MODEL 60-0, OMS POD

(RAG005)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
67	8.624	7.300	20.00	.0000	1670.	1338.	327.4	.3029	117.0	.2172-03	3871.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3358
67	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
67	.83500	437.62	1.0000	.4771-01	.5732-01	.6373-01	65.58	3.129	.4033	550.2	.7113-03	.7909-03
67	.83500	451.57	2.0000	.1851	.2224	.2474	65.44	12.11	.4045	551.9	.2760-02	.3070-02
67	.83500	463.35	3.0000	.2191	.2634	.2930	65.38	14.33	.4050	552.6	.3268-02	.3636-02
67	.83500	474.41	4.0000	.1136	.1366	.1519	65.38	7.430	.4050	552.6	.1695-02	.1886-02
67	.83500	485.17	5.0000	.4130-01	.4965-01	.5523-01	65.36	2.699	.4052	552.9	.6161-03	.6854-03
67	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
67	.83500	495.98	8.0000	.2385-01	.2665-01	.3186-01	65.61	1.565	.4031	550.0	.3556-03	.3953-03
67	.84300	434.29	9.0000	.5057-01	.6075-01	.6755-01	65.57	3.316	.4034	550.4	.7539-03	.8383-03
67	.84300	446.10	10.000	.1700	.2043	.2273	65.40	11.12	.4049	552.4	.2535-02	.2820-02
67	.84300	459.73	11.000	.1744	.2097	.2333	65.26	11.38	.4061	554.2	.2602-02	.2895-02
67	.84300	472.01	12.000	.1560	.1876	.2088	65.23	10.18	.4063	554.4	.2328-02	.2591-02
67	.84300	482.44	13.000	.1343	.1615	.1797	65.28	8.768	.4059	553.8	.2004-02	.2229-02
67	.84300	492.89	14.000	.1171	.1407	.1566	65.32	7.647	.4056	553.4	.1746-02	.1943-02
67	.84300	501.43	15.000	.9490-01	.6599-01	.7340-01	65.38	3.589	.4051	552.7	.8188-03	.9108-03
67	.84300	508.10	16.000	.3520-01	.4231-01	.4706-01	65.39	2.302	.4050	552.6	.5250-03	.5840-03
67	.84300	510.38	17.000	.2981-01	.3681-01	.3983-01	65.52	1.953	.4038	551.0	.4445-03	.4943-03
67	.84300	504.13	18.000	.1894-01	.2275-01	.2530-01	65.63	1.243	.4029	549.7	.2824-03	.3140-03
67	.85400	437.47	19.000	.6441-01	.7724-01	.8578-01	66.21	4.264	.3978	542.8	.9588-03	.1065-02
67	.85400	449.66	20.000	.1182	.1419	.1576	66.03	7.807	.3993	544.9	.1761-02	.1956-02
67	.85400	462.41	21.000	.1117	.1340	.1489	65.95	7.364	.4000	545.8	.1663-02	.1848-02
67	.85400	475.11	22.000	.9660-01	.1159	.1288	65.94	6.370	.4001	545.9	.1439-02	.1599-02
67	.85400	485.84	23.000	.6890-01	.8266-01	.9184-01	66.01	4.548	.3995	545.1	.1026-02	.1140-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG005)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
67	.85400	495.69	24.000	.7262-01	.8713-01	.9679-01	66.03	4.795	.3993	544.9	.1082-02	.1201-02
67	.85400	504.61	25.000	.7499-01	.8996-01	.9993-01	66.06	4.954	.3990	544.5	.1117-02	.1240-02
67	.85400	512.79	26.000	.3840-01	.4606-01	.5116-01	66.12	2.539	.3986	543.8	.5718-03	.6351-03
67	.85400	517.49	27.000	.2756-01	.3305-01	.3670-01	66.18	1.824	.3980	543.1	.4103-03	.4556-03
67	.85400	514.51	28.000	.2401-01	.2878-01	.3196-01	66.29	1.592	.3970	541.7	.3574-03	.3968-03
67	.85400	506.42	29.000	.1763-01	.2113-01	.2345-01	66.43	1.171	.3958	540.0	.2623-03	.2912-03
67	.86200	427.05	30.000	.1945-01	.2331-01	.2588-01	66.39	1.291	.3962	540.5	.2894-03	.3213-03
67	.86200	438.95	31.000	.4695-01	.5631-01	.6255-01	66.11	3.104	.3986	543.9	.6990-03	.7765-03
67	.86200	451.59	32.000	.9790-01	.1175	.1305	65.96	6.457	.4000	545.8	.1458-02	.1620-02
67	.86200	478.95	34.000	.5768-01	.6921-01	.7690-01	65.98	3.806	.3998	545.5	.8591-03	.9546-03
67	.86200	488.55	35.000	.4102-01	.4921-01	.5467-01	66.02	2.708	.3994	545.0	.6108-03	.6786-03
67	.86200	498.45	36.000	.3754-01	.4504-01	.5003-01	66.10	2.478	.3994	544.9	.5590-03	.6211-03
67	.86200	507.16	37.000	.4274-01	.5126-01	.5694-01	66.10	2.825	.3987	544.0	.6364-03	.7059-03
67	.86200	515.29	38.000	.3565-01	.4276-01	.4749-01	66.16	2.359	.3982	543.3	.5308-03	.5895-03
67	.86200	521.19	39.000	.2230-01	.2674-01	.2970-01	66.20	1.476	.3978	542.8	.3320-03	.3687-03
67	.86200	520.43	40.000	.2245-01	.2691-01	.2988-01	66.27	1.487	.3972	542.0	.3341-03	.3710-03
67	.86200	512.69	41.000	.1846-01	.2212-01	.2455-01	66.41	1.226	.3960	540.3	.2746-03	.3049-03
67	.87200	428.93	42.000	.1614-01	.1935-01	.2148-01	66.28	1.070	.3971	541.8	.2402-03	.2667-03
67	.87200	441.15	43.000	.4342-01	.5207-01	.5784-01	66.11	2.870	.3986	543.9	.6464-03	.7180-03
67	.87200	452.74	44.000	.8670-01	.1040	.1156	65.00	5.722	.3996	545.2	.1291-02	.1433-02
67	.87200	466.33	45.000	.1250-01	.1498-01	.1663-01	66.42	.8302	.3959	540.1	.1859-03	.2064-03
67	.87200	479.54	46.000	.4879-01	.5854-01	.6504-01	65.99	3.220	.3997	545.4	.7267-03	.8074-03
67	.87200	489.71	47.000	.2695-01	.3233-01	.3592-01	66.03	1.779	.3994	544.9	.4014-03	.4459-03
67	.87200	499.35	48.000	.1855-01	.2225-01	.2471-01	66.10	1.226	.3987	544.0	.2762-03	.3068-03
67	.87200	508.42	49.000	.1749-01	.2098-01	.2330-01	66.16	1.157	.3981	543.3	.2604-03	.2892-03
67	.87200	516.86	50.000	.2313-01	.2774-01	.3081-01	66.18	1.531	.3980	543.0	.3444-03	.3825-03
67	.87200	524.20	51.000	.1437-01	.1722-01	.1913-01	66.26	.9519	.3973	542.1	.2138-03	.2374-03
67	.87200	524.50	52.000	.1622-01	.1944-01	.2158-01	66.30	1.075	.3970	541.6	.2413-03	.2680-03
67	.87200	518.62	53.000	.1149-01	.1377-01	.1528-01	65.52	.7644	.3950	539.0	.1709-03	.1897-03
67	.88100	467.72	58.000	.6475-01	.7770-01	.8634-01	65.95	4.271	.4000	545.8	.9645-03	.1072-02
67	.88100	501.33	61.000	.9781-02	.1175-01	.1306-01	65.59	.6415	.4032	550.1	.1458-03	.1621-03

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

(RAG005)

OMS POD (60-O)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
66	9.029	7.300	25.00	.0000	1667.	1301.	317.6	.3031	113.6	.2240-03	3813.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE IN=540 IN=549
66	.0000	.3349

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
66	.83500	437.62	1.0000	.3501-01	.4240-01	.4740-01	60.99	2.135	.4260	564.0	.5162-03	.5771-03
66	.83500	451.57	2.0000	.1370	.1660	.1857	60.87	8.342	.4271	565.5	.2022-02	.2261-02
66	.83500	463.35	3.0000	.2127	.2578	.2883	60.80	12.93	.4278	566.3	.3138-02	.3510-02
66	.83500	474.41	4.0000	.1060	.1284	.1436	60.82	6.444	.4276	566.1	.1563-02	.1748-02
66	.83500	485.17	5.0000	.3987-01	.4831-01	.5403-01	60.82	2.425	.4276	566.1	.5882-03	.6578-03
66	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
66	.83500	495.98	8.0000	.5798-01	.7019-01	.7846-01	61.05	3.539	.4255	563.3	.8547-03	.9554-03
66	.84300	434.29	9.0000	.2847-01	.3448-01	.3855-01	60.97	1.736	.4262	564.2	.4199-03	.4694-03
66	.84300	446.10	10.000	.1041	.1262	.1411	60.83	6.333	.4275	566.0	.1536-02	.1718-02
66	.84300	459.73	11.000	.1773	.2149	.2403	60.74	10.77	.4284	567.1	.2616-02	.2926-02
66	.84300	472.01	12.000	.1545	.1873	.2095	60.70	9.380	.4287	567.5	.2280-02	.2551-02
66	.84300	482.44	13.000	.9372-01	.1136	.1270	60.75	5.693	.4283	567.0	.1383-02	.1547-02
66	.84300	492.89	14.000	.8332-01	.1010	.1129	60.78	5.064	.4275	566.5	.1229-02	.1375-02
66	.84300	501.43	15.000	.4802-01	.5818-01	.6507-01	60.83	2.921	.4275	566.9	.7084-03	.7922-03
66	.84300	508.10	16.000	.4092-01	.4957-01	.5544-01	60.86	2.490	.4272	565.6	.6036-03	.6750-03
66	.84300	510.39	17.000	.5976-01	.7237-01	.8091-01	60.97	3.644	.4262	564.2	.8812-03	.9852-03
66	.84300	504.13	18.000	.3454-01	.4181-01	.4673-01	61.07	2.109	.4253	563.0	.5091-03	.5691-03
66	.85400	437.47	19.000	.3566-01	.4316-01	.4822-01	61.20	2.182	.4241	561.5	.5255-03	.5872-03
66	.85400	449.66	20.000	.9585-01	.1160	.1297	61.05	5.852	.4255	563.3	.1413-02	.1579-02
66	.85400	462.41	21.000	.1492	.1807	.2021	60.97	9.099	.4262	564.3	.2201-02	.2460-02
66	.85400	475.11	22.000	.1115	.1350	.1510	60.96	6.798	.4263	564.3	.1644-02	.1838-02
66	.85400	485.84	23.000	.5550-01	.6720-01	.7512-01	61.02	3.386	.4258	563.7	.8182-03	.9147-03

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OH110, MODEL 60-O, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
66	.85400	495.69	24.000	.5165-01	.6254-01	.6990-01	61.05	3.153	.4255	563.3	.7615-03	.8512-03
66	.85400	504.61	25.000	.5724-01	.6930-01	.7745-01	61.10	3.198	.4250	562.7	.8438-03	.9431-03
66	.85400	512.79	26.000	.3354-01	.4060-01	.4537-01	61.14	2.051	.4246	562.2	.4944-03	.5525-03
66	.85400	517.49	27.000	.2568-01	.3108-01	.3473-01	61.20	1.572	.4241	561.5	.3785-03	.4229-03
66	.85400	514.51	28.000	.3200-01	.3871-01	.4324-01	61.30	1.961	.4232	560.3	.4714-03	.5267-03
66	.85400	506.42	29.000	.2490-01	.3011-01	.3363-01	61.40	1.529	.4223	559.0	.3668-03	.4096-03
66	.86200	427.05	30.000	.8802-02	.1065-01	.1190-01	61.30	.5396	.4232	560.2	.1297-03	.1449-03
66	.86200	438.95	31.000	.2840-01	.3437-01	.3841-01	61.14	1.736	.4247	562.2	.4185-03	.4677-03
66	.86200	451.59	32.000	.1097	.1328	.1485	60.99	6.688	.4260	564.0	.1617-02	.1808-02
66	.86200	478.95	34.000	.6285-01	.7610-01	.8507-01	61.01	3.834	.4259	563.8	.9267-03	.1036-02
66	.86200	488.55	35.000	.4041-01	.4892-01	.5469-01	61.04	2.466	.4256	563.4	.5957-03	.6659-03
66	.86200	498.45	36.000	.2893-01	.3503-01	.3915-01	61.06	1.766	.4254	563.2	.4265-03	.4767-03
66	.86200	507.16	37.000	.3234-01	.3915-01	.4375-01	61.13	1.977	.4248	562.3	.4768-03	.5328-03
66	.86200	515.29	38.000	.2890-01	.3497-01	.3908-01	61.19	1.768	.4242	561.6	.4259-03	.4759-03
66	.86200	521.19	39.000	.2196-01	.2657-01	.2969-01	61.22	1.344	.4239	561.2	.3236-03	.3616-03
66	.86200	520.43	40.000	.2247-01	.2719-01	.3037-01	61.29	1.377	.4233	560.4	.3311-03	.3699-03
66	.86200	512.69	41.000	.2372-01	.2868-01	.3204-01	61.39	1.456	.4224	559.2	.3493-03	.3902-03
66	.87200	428.93	42.000	.8095-02	.9795-02	.1094-01	61.24	.4957	.4238	561.0	.1193-03	.1333-03
66	.87200	441.15	43.000	.2460-01	.2978-01	.3328-01	61.14	1.504	.4247	562.2	.3626-03	.4053-03
66	.87200	452.74	44.000	.9484-01	.1148	.1284	61.02	5.787	.4257	563.6	.1398-02	.1563-02
66	.87200	466.33	45.000	.2129-01	.2573-01	.2874-01	61.50	1.309	.4214	557.8	.3134-03	.3500-03
66	.87200	479.54	46.000	.5311-01	.6431-01	.7189-01	61.01	3.240	.4259	563.8	.7831-03	.8754-03
66	.87200	489.71	47.000	.3318-01	.4017-01	.4490-01	61.05	2.025	.4255	563.3	.4691-03	.5467-03
66	.87200	499.35	48.000	.1984-01	.2402-01	.2685-01	61.10	1.212	.4244	562.7	.2275-03	.2542-03
66	.87200	508.42	49.000	.1544-01	.1868-01	.2088-01	61.17	.9442	.4241	561.4	.2894-03	.3233-03
66	.87200	516.86	50.000	.1964-01	.2376-01	.2655-01	61.20	1.202	.4237	560.9	.2411-03	.2694-03
66	.87200	524.20	51.000	.1637-01	.1980-01	.2212-01	61.25	1.002	.4232	560.2	.2482-03	.2773-03
66	.87200	524.50	52.000	.1685-01	.2038-01	.2277-01	61.31	1.033	.4232	560.2	.2482-03	.2773-03
66	.87200	518.62	53.000	.1347-01	.1629-01	.1819-01	61.50	.8285	.4214	557.9	.1984-03	.2215-03
66	.88100	467.72	58.000	.7990-01	.9676-01	.1082	61.00	4.874	.4260	563.9	.1178-02	.1317-02
66	.88100	501.33	61.000	.8192-02	.9916-02	.1108-01	61.14	.5008	.4247	562.2	.1207-03	.1349-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
65	9.048	7.300	27.50	.0000	1672.	1301.	317.9	.3040	113.6	.2245-03	3814.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 TW=354
65	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
65	.83500	437.62	1.0000	.2014-01	.2437-01	.2723-01	61.36	1.236	.4240	561.7	.2964-03	.3312-03
65	.83500	451.57	2.0000	.3536-01	.4281-01	.4785-01	61.22	2.165	.4252	563.4	.5207-03	.5820-03
65	.83500	463.35	3.0000	.1977	.2395	.2677	61.14	12.09	.4260	564.4	.2912-02	.3256-02
65	.83500	474.41	4.0000	.1546	.1872	.2092	61.15	9.452	.4259	564.2	.2276-02	.2545-02
65	.83500	485.17	5.0000	.6239-01	.7555-01	.8446-01	61.14	3.815	.4259	564.3	.9188-03	.1027-02
65	.83500	497.18	7.0000	.2598-01	.3145-01	.3514-01	61.28	1.592	.4248	562.7	.3825-03	.4275-03
65	.84300	495.98	8.0000	.4767-01	.5768-01	.6444-01	61.40	2.927	.4236	561.2	.7016-03	.7839-03
65	.84300	434.29	9.0000	.1052-01	.1273-01	.1422-01	61.35	.6451	.4241	561.9	.1548-03	.1730-03
65	.84300	446.10	10.000	.3990-01	.4832-01	.5401-01	61.18	2.441	.4257	563.9	.5876-03	.6569-03
65	.84300	459.73	11.000	.5981-01	.7245-01	.8101-01	61.05	3.651	.4268	565.5	.8811-03	.9852-03
65	.84300	472.01	12.000	.1867	.2262	.2529	61.02	11.39	.4271	565.8	.2750-02	.3078-02
65	.84300	482.44	13.000	.1049	.1270	.1420	61.07	6.405	.4266	565.2	.1545-02	.1727-02
65	.84300	492.89	14.000	.7412-01	.8977-01	.1004	61.09	4.528	.4265	565.0	.1092-02	.1221-02
65	.84300	501.43	15.000	.6161-01	.7461-01	.8341-01	61.14	3.767	.4260	564.3	.9074-03	.1014-02
65	.84300	508.10	16.000	.3920-01	.4626-01	.5171-01	61.17	2.337	.4257	564.0	.5626-03	.6289-03
65	.84300	510.38	17.000	.4101-01	.4963-01	.5546-01	61.34	2.516	.4242	561.9	.6037-03	.6746-03
65	.84300	504.13	18.000	.4956-01	.5996-01	.6699-01	61.42	3.044	.4234	560.9	.7294-03	.8148-03
65	.85400	437.47	19.000	.1472-01	.1777-01	.1982-01	62.05	9.131	.4177	553.3	.2162-03	.2412-03
65	.85400	449.66	20.000	.3517-01	.4249-01	.4742-01	61.87	2.176	.4193	555.5	.5169-03	.5769-03
65	.85400	462.41	21.000	.6190-01	.7480-01	.8350-01	61.78	3.824	.4202	556.7	.9100-03	.1016-02
65	.85400	475.11	22.000	.1483	.1793	.2001	61.77	9.162	.4203	556.8	.2181-02	.2435-02
65	.85400	485.84	23.000	.7415-01	.8960-01	.1000	61.80	4.583	.4200	556.4	.1090-02	.1217-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, OMS POD

(RAG005)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
65	.85400	495.69	24.000	.4429-01	.5350-01	.5972-01	61.85	2.739	.4196	555.8	.5509-03	.7866-03
65	.85400	504.61	25.000	.4756-01	.5746-01	.6412-01	61.89	2.944	.4191	555.3	.6990-03	.7802-03
65	.85400	512.79	26.000	.3681-01	.4446-01	.4961-01	61.95	2.530	.4187	554.6	.5409-03	.6036-03
65	.85400	517.49	27.000	.2261-01	.2730-01	.3046-01	62.01	1.402	.4180	553.8	.3322-03	.3706-03
65	.85400	514.51	28.000	.3239-01	.3909-01	.4361-01	62.13	2.012	.4169	552.4	.4757-03	.5306-03
65	.85400	506.42	29.000	.3944-01	.4759-01	.5307-01	62.25	2.455	.4159	551.0	.5791-03	.6459-03
65	.86200	427.05	30.000	.4701-02	.5674-02	.6328-02	62.17	.2923	.4166	551.9	.6904-04	.7700-04
65	.86200	438.95	31.000	.1344-01	.1624-01	.1812-01	61.96	.8330	.4185	554.4	.1975-03	.2204-03
65	.86200	451.59	32.000	.4559-01	.5509-01	.6150-01	61.79	2.817	.4201	556.5	.6702-03	.7482-03
65	.86200	478.95	34.000	.8971-01	.1084	.1210	61.79	5.543	.4201	556.6	.1319-02	.1472-02
65	.86200	488.55	35.000	.4995-01	.6035-01	.6737-01	61.82	3.088	.4198	556.2	.7343-03	.8196-03
65	.86200	498.45	36.000	.2943-01	.3555-01	.3968-01	61.84	1.820	.4196	555.9	.4325-03	.4828-03
65	.86200	507.16	37.000	.2478-01	.2994-01	.3341-01	61.91	1.534	.4190	555.1	.3642-03	.4065-03
65	.86200	515.29	38.000	.2598-01	.3137-01	.3501-01	61.98	1.610	.4183	554.2	.3817-03	.4259-03
65	.86200	521.19	39.000	.1801-01	.2174-01	.2426-01	62.03	1.117	.4179	553.7	.2646-03	.2952-03
65	.86200	520.43	40.000	.2146-01	.2590-01	.2890-01	62.11	1.333	.4172	552.6	.3152-03	.3516-03
65	.86200	512.69	41.000	.3193-01	.3853-01	.4297-01	62.23	1.987	.4160	551.2	.4689-03	.5229-03
65	.87200	428.93	42.000	.5191-02	.6991-02	.7799-02	62.08	.3595	.4174	553.0	.8506-04	.9489-04
65	.87200	441.15	43.000	.1318-01	.1592-01	.1776-01	61.95	.8164	.4186	554.5	.1936-03	.2161-03
65	.87200	452.74	44.000	.4589-01	.5545-01	.6189-01	61.82	2.837	.4198	556.1	.6746-03	.7530-03
65	.87200	466.33	45.000	.1756-01	.2118-01	.2362-01	62.23	1.092	.4161	551.2	.2578-03	.2875-03
65	.87200	479.54	46.000	.7003-01	.8463-01	.9447-01	61.78	4.327	.4201	556.6	.1030-02	.1149-02
65	.87200	489.71	47.000	.3995-01	.4707-01	.5254-01	61.82	2.408	.4198	556.2	.5726-03	.6392-03
65	.87200	499.35	48.000	.1948-01	.2353-01	.2626-01	61.88	1.205	.4193	555.5	.2863-03	.3195-03
65	.87200	508.42	49.000	.1262-01	.1548-01	.1727-01	61.94	.7938	.4187	554.7	.1883-03	.2102-03
65	.87200	516.86	50.000	.1443-01	.1742-01	.1944-01	61.99	.8943	.4183	554.1	.2120-03	.2365-03
65	.87200	524.20	51.000	.1187-01	.1433-01	.1598-01	62.05	.7362	.4177	553.4	.1743-03	.1945-03
65	.87200	524.50	52.000	.1455-01	.1756-01	.1958-01	62.12	.9036	.4171	552.5	.2136-03	.2383-03
65	.87200	518.62	53.000	.1127-01	.1360-01	.1516-01	62.32	.7024	.4153	550.1	.1654-03	.1945-03
65	.88100	467.72	58.000	.9594-01	.1159	.1294	61.77	5.926	.4202	556.7	.1410-02	.1574-02
65	.88100	501.33	61.000	.8625-02	.1044-01	.1166-01	61.37	.5293	.4239	561.5	.1269-03	.1418-03

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OH110 (ARC3.54WT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG005)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
64	8.886	7.300	30.00	.0000	1678.	1318.	322.3	.3048	115.2	.2220-03	3840.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
64	.0000	.3363

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
64	.83500	437.62	1.0000	.8905-02	.1071-01	.1193-01	64.15	.5712	.4079	547.8	.1313-03	.1462-03
64	.83500	451.57	2.0000	.5964-02	.7180-02	.7994-02	64.01	.3818	.4092	549.5	.8799-04	.9797-04
64	.83500	463.35	3.0000	.4162-01	.5012-01	.5581-01	63.91	2.660	.4100	550.7	.6142-03	.6840-03
64	.83500	474.41	4.0000	.9562-01	.1151	.1282	63.92	6.112	.4099	550.6	.1411-02	.1571-02
64	.83500	485.17	5.0000	.8652-01	.1042	.1160	63.92	5.530	.4100	550.6	.1277-02	.1422-02
64	.83500	497.18	7.0000	.6741-01	.5628-01	.6266-01	64.06	2.996	.4087	548.8	.6898-03	.7679-03
64	.83500	495.98	8.0000	.5741-01	.6907-01	.7888-01	64.18	3.685	.4076	547.4	.8466-03	.9422-03
64	.84300	434.29	9.0000	.6229-02	.7495-02	.8343-02	64.13	3.995	.4080	548.0	.9186-04	.1023-03
64	.84300	446.10	10.000	.1969-01	.2370-01	.2639-01	63.95	1.259	.4097	550.2	.2905-03	.3235-03
64	.84300	459.73	11.000	.2971-01	.3579-01	.3986-01	63.81	1.896	.4109	551.8	.4395-03	.4885-03
64	.84300	472.01	12.000	.5221-01	.6288-01	.7005-01	63.79	3.330	.4111	552.1	.7706-03	.8584-03
64	.84300	482.44	13.000	.7293-01	.8783-01	.9783-01	63.63	4.655	.4108	551.7	.1199-02	.1345-03
64	.84300	492.89	14.000	.8605-01	.1036	.1154	63.85	5.495	.4105	551.4	.1270-02	.1414-02
64	.84300	501.43	15.000	.7583-01	.9130-01	.1017	63.93	4.848	.4099	550.5	.1119-02	.1246-02
64	.84300	508.10	16.000	.4648-01	.5596-01	.6232-01	63.95	2.973	.4097	550.2	.6858-03	.7637-03
64	.84300	510.38	17.000	.5578-01	.6712-01	.7472-01	64.10	3.575	.4083	548.4	.8226-03	.9158-03
64	.84300	504.13	18.000	.4600-01	.5534-01	.6159-01	64.21	2.953	.4074	547.1	.6782-03	.7548-03
64	.85400	437.47	19.000	.8188-02	.9855-02	.1097-01	64.03	.5243	.4090	549.3	.1208-03	.1345-03
64	.85400	449.66	20.000	.2501-01	.3012-01	.3354-01	63.84	1.596	.4107	551.5	.3691-03	.4111-03
64	.85400	462.41	21.000	.4106-01	.4945-01	.5510-01	63.75	2.617	.4115	552.6	.6061-03	.6752-03
64	.85400	475.11	22.000	.5274-01	.6355-01	.7080-01	63.72	3.361	.4117	553.0	.7787-03	.8675-03
64	.85400	485.84	23.000	.6574-01	.7919-01	.8821-01	63.77	4.192	.4113	552.3	.9704-03	.1081-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD (RAG005)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
64	.85400	495.69	24.000	.6661-01	.8023-01	.8936-01	63.81	4.250	.4109	551.9	.9831-03	.1092-02
64	.85400	504.61	25.000	.5315-01	.6400-01	.7128-01	63.87	3.394	.4104	551.2	.7843-03	.7843-03
64	.85400	512.79	26.000	.3574-01	.4303-01	.4792-01	63.93	2.285	.4099	550.4	.5273-03	.5873-03
64	.85400	517.49	27.000	.2386-01	.2872-01	.3198-01	64.01	1.527	.4092	549.5	.3520-03	.3919-03
64	.85400	514.51	28.000	.3245-01	.3905-01	.4347-01	64.12	2.081	.4082	548.2	.4786-03	.5328-03
64	.85400	506.42	29.000	.3248-01	.3907-01	.4348-01	64.24	2.086	.4071	546.8	.4789-03	.5329-03
64	.86200	427.05	30.000	.3053-02	.3673-02	.4089-02	64.16	1.959	.4078	547.7	.4502-04	.5011-04
64	.86200	438.95	31.000	.9273-02	.1116-01	.1243-01	63.94	5.929	.4098	550.4	.1368-03	.1524-03
64	.86200	451.59	32.000	.3651-01	.4398-01	.4900-01	63.76	2.328	.4114	552.5	.5390-03	.6004-03
64	.86200	478.95	34.000	.5019-01	.6047-01	.6736-01	63.76	3.200	.4114	552.5	.7410-03	.8254-03
64	.86200	488.55	35.000	.5011-01	.6036-01	.6723-01	63.78	3.196	.4112	552.2	.7396-03	.8239-03
64	.86200	498.45	36.000	.4607-01	.5549-01	.6181-01	63.80	2.328	.4110	552.0	.6800-03	.7574-03
64	.86200	507.16	37.000	.3383-01	.4074-01	.4537-01	63.88	2.161	.4103	551.1	.4992-03	.5560-03
64	.86200	515.29	38.000	.2322-01	.2796-01	.3113-01	63.97	1.486	.4095	550.0	.3426-03	.3815-03
64	.86200	521.19	39.000	.1642-01	.1976-01	.2200-01	64.01	1.051	.4091	549.5	.2422-03	.2696-03
64	.86200	520.43	40.000	.1994-01	.2400-01	.2672-01	64.10	1.278	.4084	548.4	.2941-03	.3274-03
64	.86200	512.69	41.000	.2809-01	.3380-01	.3761-01	64.22	1.804	.4073	547.0	.4142-03	.4610-03
64	.87200	428.93	42.000	.4214-02	.5072-02	.5647-02	64.06	2.700	.4087	548.9	.6216-04	.6920-04
64	.87200	441.15	43.000	.1071-01	.1289-01	.1435-01	63.92	5.843	.4099	550.6	.1580-03	.1759-03
64	.87200	452.74	44.000	.3719-01	.4480-01	.4990-01	63.79	2.372	.4111	552.2	.5489-03	.6115-03
64	.87200	466.33	45.000	.1289-01	.1551-01	.1726-01	64.13	8.266	.4080	548.0	.1901-03	.2116-03
64	.87200	479.54	46.000	.4827-01	.5815-01	.6479-01	63.75	3.077	.4115	552.7	.7126-03	.7939-03
64	.87200	489.71	47.000	.3414-01	.4113-01	.4581-01	63.77	2.177	.4112	552.3	.5040-03	.5614-03
64	.87200	499.35	48.000	.3022-01	.3640-01	.4054-01	63.84	1.929	.4107	551.6	.4461-03	.4968-03
64	.87200	508.42	49.000	.2124-01	.2558-01	.2849-01	63.90	1.357	.4101	550.8	.3135-03	.3491-03
64	.87200	516.86	50.000	.1559-01	.1877-01	.2090-01	63.97	9.973	.4095	550.0	.2300-03	.2561-03
64	.87200	524.20	51.000	.1007-01	.1212-01	.1349-01	64.04	5.449	.4089	549.1	.1485-03	.1654-03
64	.87200	524.50	52.000	.1200-01	.1444-01	.1608-01	64.10	7.692	.4083	548.4	.1770-03	.1970-03
64	.87200	518.62	53.000	.7526-02	.9052-02	.1007-01	64.30	4.839	.4066	546.1	.1109-03	.1235-03
64	.88100	467.72	58.000	.7710-01	.9289-01	.1035	63.73	4.914	.4116	552.8	.1138-02	.1268-02
64	.88100	501.33	61.000	.9527-02	.1147-01	.1276-01	64.08	6.105	.4085	548.6	.1405-03	.1564-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG006)

OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
47	3.778	5.280	20.00	.0000	308.4	1314.	321.2	.4157	203.6	.1714-03	3692.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2839										
47	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
47	.83500	437.62	1.0000	.7095-01	.8561-01	.9547-01	53.23	3.777	.4159	556.7	.1193-02	.1330-02
47	.83500	451.57	2.0000	.2115	.2554	.2849	53.03	11.21	.4180	559.6	.3558-02	.3970-02
47	.83500	463.35	3.0000	.2973	.3592	.4009	52.92	15.73	.4192	561.1	.5005-02	.5585-02
47	.83500	474.41	4.0000	.1633	.1973	.2202	52.91	8.641	.4193	561.3	.2749-02	.3068-02
47	.83500	485.17	5.0000	.5784-01	.6988-01	.7800-01	52.87	3.058	.4197	561.8	.9737-03	.1087-02
47	.83500	497.18	7.0000	.2688-01	.3250-01	.3628-01	52.76	1.418	.4208	563.3	.4527-03	.5055-03
47	.83500	495.98	8.0000	.3554-01	.4291-01	.4787-01	53.05	1.885	.4178	559.3	.5979-03	.6670-03
47	.84300	434.29	9.0000	.3255-01	.3932-01	.4389-01	52.93	1.723	.4191	561.0	.5479-03	.6115-03
47	.84300	446.10	10.000	.2516	.3038	.3391	52.95	13.32	.4189	560.7	.4234-02	.4725-02
47	.84300	459.73	11.000	.2373	.2868	.3202	52.79	12.53	.4205	562.9	.3996-02	.4461-02
47	.84300	472.01	12.000	.2743	.3063	.3063	52.75	11.97	.4209	563.5	.3821-02	.4267-02
47	.84300	482.44	13.000	.1883	.2275	.2540	52.82	9.944	.4203	562.5	.3170-02	.3539-02
47	.84300	492.89	14.000	.1762	.2129	.2376	52.90	4.323	.4194	561.4	.2967-02	.3311-02
47	.84300	501.43	15.000	.8286-01	.1001	.1117	52.90	4.393	.4194	561.4	.1395-02	.1557-02
47	.84300	508.10	16.000	.5203-01	.6286-01	.7017-01	52.89	2.752	.4195	561.5	.8759-03	.9776-03
47	.84300	510.38	17.000	.4652-01	.5616-01	.6265-01	53.08	2.469	.4174	558.8	.7825-03	.8730-03
47	.84300	504.13	18.000	.4168-01	.5030-01	.5610-01	53.18	2.217	.4164	557.4	.7009-03	.7818-03
47	.85400	437.47	19.000	.1297	.1566	.1747	53.08	6.884	.4175	558.9	.2182-02	.2434-02
47	.85400	449.66	20.000	.1519	.1835	.2049	52.84	8.027	.4200	562.2	.2557-02	.2855-02
47	.85400	462.41	21.000	.1438	.1739	.1941	52.72	7.582	.4213	563.9	.2422-02	.2705-02
47	.85400	475.11	22.000	.1310	.1584	.1769	52.72	6.908	.4213	564.0	.2207-02	.2465-02
47	.85400	485.84	23.000	.9673-01	.1169	.1305	52.79	5.106	.4206	562.9	.1629-02	.1818-02

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OH110 (ARC3.544T-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG006)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
47	.85400	495.69	24.000	.1069	.1291	.1441	52.83	5.645	.4201	562.3	.1799-02	.2008-02
47	.85400	504.61	25.000	.1228	.1484	.1657	52.87	6.495	.4197	561.7	.2068-02	.2308-02
47	.85400	512.79	26.000	.6151-01	.7430-01	.8292-01	52.92	3.255	.4191	561.0	.1035-02	.1155-02
47	.85400	517.49	27.000	.3972-01	.4797-01	.5352-01	53.00	2.105	.4183	560.0	.6684-03	.7458-03
47	.85400	514.51	28.000	.4776-01	.5765-01	.6431-01	53.11	2.536	.4172	558.4	.8033-03	.8961-03
47	.85400	506.42	29.000	.4167-01	.5028-01	.5607-01	53.25	2.219	.4157	556.4	.7007-03	.7814-03
47	.86200	427.05	30.000	.3677-01	.4435-01	.4945-01	53.28	1.959	.4154	556.0	.6181-03	.6892-03
47	.86200	438.95	31.000	.8624-01	.1042	.1162	52.97	4.568	.4186	560.3	.1451-02	.1620-02
47	.86200	451.59	32.000	.1108	.1339	.1495	52.76	5.846	.4208	563.3	.1866-02	.2083-02
47	.86200	478.95	34.000	.7825-01	.9458-01	.1056	52.76	4.129	.4208	563.3	.1318-02	.1471-02
47	.86200	488.55	35.000	.5721-01	.6913-01	.7718-01	52.82	3.022	.4202	562.5	.9632-03	.1075-02
47	.86200	498.45	36.000	.5369-01	.6487-01	.7241-01	52.85	2.838	.4199	562.1	.9039-03	.1009-02
47	.86200	507.16	37.000	.6921-01	.8360-01	.9330-01	52.93	3.663	.4190	560.9	.1165-02	.1300-02
47	.86200	515.29	38.000	.6535-01	.7892-01	.8806-01	52.99	3.463	.4184	560.1	.1100-02	.1227-02
47	.86200	521.19	39.000	.3655-01	.4413-01	.4923-01	53.05	1.939	.4177	559.2	.6149-03	.6860-03
47	.86200	520.43	40.000	.4142-01	.4999-01	.5577-01	53.11	2.199	.4172	558.4	.6967-03	.7771-03
47	.86200	512.69	41.000	.4351-01	.5249-01	.5853-01	53.26	2.317	.4156	556.2	.7316-03	.8158-03
47	.87200	428.93	42.000	.3399-01	.4102-01	.4575-01	53.16	1.807	.4166	557.6	.5716-03	.6376-03
47	.87200	441.15	43.000	.6978-01	.8428-01	.9405-01	52.96	3.695	.4188	560.5	.1174-02	.1310-02
47	.87200	452.74	44.000	.9498-01	.1148	.1281	52.83	5.017	.4202	562.4	.1599-02	.1785-02
47	.87200	466.33	45.000	.9908-01	.1198	.1337	52.77	5.229	.4207	563.2	.1668-02	.1863-02
47	.87200	479.54	46.000	.7065-01	.8539-01	.9531-01	52.81	3.731	.4204	562.7	.1190-02	.1328-02
47	.87200	489.71	47.000	.4082-01	.4933-01	.5507-01	52.84	2.157	.4200	562.2	.6873-03	.7672-03
47	.87200	499.35	48.000	.2832-01	.3421-01	.3819-01	52.90	1.498	.4194	561.4	.4767-03	.5320-03
47	.87200	508.42	49.000	.2933-01	.3604-01	.4021-01	52.95	1.580	.4189	560.7	.5021-03	.5603-03
47	.87200	516.86	50.000	.4660-01	.5627-01	.6278-01	53.04	2.472	.4179	559.4	.7840-03	.8748-03
47	.87200	524.20	51.000	.3414-01	.4121-01	.4597-01	53.09	1.812	.4173	558.6	.5742-03	.6406-03
47	.87200	524.50	52.000	.3362-01	.4057-01	.4526-01	53.15	1.787	.4167	557.8	.5654-03	.6307-03
47	.87200	518.62	53.000	.3084-01	.3719-01	.4146-01	53.37	1.646	.4144	554.7	.5184-03	.5779-03
47	.88100	467.72	58.000	.8628-01	.1043	.1164	52.76	4.552	.4208	563.3	.1453-02	.1622-02
47	.88100	501.33	61.000	.1191-01	.1437-01	.1603-01	53.23	.6341	.4159	556.7	.2003-03	.2234-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG006)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
48	3.836	5.280	25.00	.0000	307.7	1300.	317.5	.4151	201.2	.1731-03	3671.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2834
48	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	ORET BTU/ FT ² SEC	ODOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
48	.83500	437.62	1.0000	.4800-01	.5796-01	.6468-01	52.30	2.510	.4182	553.4	.8029-03	.8958-03
48	.83500	451.57	2.0000	.1923	.2323	.2594	52.10	10.02	.4204	556.2	.3218-02	.3592-02
48	.83500	463.35	3.0000	.2359	.2852	.3184	51.99	12.26	.4216	557.7	.3949-02	.4410-02
48	.83500	474.41	4.0000	.1261	.1525	.1702	51.98	6.555	.4217	557.9	.2111-02	.2358-02
48	.83500	485.17	5.0000	.6017-01	.7276-01	.8126-01	51.94	3.125	.4221	558.5	.1008-02	.1125-02
48	.83500	497.18	7.0000	.1027	.1243	.1388	51.81	5.322	.4235	560.3	.1721-02	.1923-02
48	.83500	495.98	8.0000	.8321-01	.1005	.1122	52.12	4.337	.4202	555.9	.1393-02	.1555-02
48	.84300	434.29	9.0000	.6976-01	.8434-01	.9418-01	52.01	3.628	.4214	557.5	.1168-02	.1304-02
48	.84300	446.10	10.000	.1533	.1853	.2069	52.03	7.976	.4212	557.3	.2567-02	.2866-02
48	.84300	459.73	11.000	.1973	.2386	.2665	51.86	10.23	.4230	559.6	.3304-02	.3691-02
48	.84300	472.01	12.000	.1644	.1989	.2222	51.83	8.522	.4234	560.1	.2754-02	.3077-02
48	.84300	482.44	13.000	.1301	.1573	.1757	51.89	6.749	.4227	559.3	.2179-02	.2433-02
48	.84300	492.89	14.000	.1059	.1281	.1431	51.90	5.496	.4225	559.0	.1774-02	.1981-02
48	.84300	501.43	15.000	.7104-01	.8597-01	.9606-01	51.77	3.678	.4240	561.0	.1190-02	.1330-02
48	.84300	508.10	16.000	.5931-01	.7171-01	.8008-01	51.99	3.083	.4216	557.8	.9931-03	.1109-02
48	.84300	510.38	17.000	.6994-01	.8452-01	.9436-01	52.11	3.645	.4203	556.0	.1171-02	.1307-02
48	.84300	504.13	18.000	.4567-01	.5515-01	.6154-01	52.29	2.388	.4184	553.6	.7639-03	.8524-03
48	.85400	437.47	19.000	.5995-01	.7244-01	.8086-01	52.14	3.126	.4199	555.6	.1003-02	.1120-02
48	.85400	449.66	20.000	.1313	.1588	.1773	51.91	6.815	.4224	558.9	.2199-02	.2456-02
48	.85400	462.41	21.000	.1485	.1797	.2003	51.79	7.692	.4237	560.6	.2488-02	.2780-02
48	.85400	475.11	22.000	.1071	.1297	.1449	51.77	5.547	.4240	560.9	.1795-02	.2006-02
48	.85400	485.84	23.000	.7220-01	.8734-01	.9757-01	51.84	3.743	.4232	559.9	.1209-02	.1351-02

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OH110 (ARC3.5MHT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG006)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H4/H7	TW DEG. R	STN NO R=.90	STN NO R=.850
48	.85400	495.69	24.000	.8048-01	.9734-01	.1087	51.89	4.176	.4227	559.2	.1348-02	.1506-02
48	.85400	504.61	25.000	.7495-01	.9064-01	.1012	51.93	3.892	.4223	558.7	.1255-02	.1402-02
48	.85400	512.79	26.000	.4724-01	.5712-01	.6379-01	51.98	2.456	.4217	557.9	.7910-03	.8834-03
48	.85400	517.49	27.000	.3316-01	.4008-01	.4475-01	52.05	1.726	.4210	557.0	.5551-03	.6198-03
48	.85400	514.51	28.000	.3990-01	.4820-01	.5380-01	52.18	2.082	.4195	555.1	.6676-03	.7451-03
48	.85400	506.42	29.000	.3633-01	.4387-01	.4895-01	52.34	1.901	.4180	553.0	.6077-03	.6780-03
48	.86200	427.05	30.000	.2384-01	.2879-01	.3212-01	52.34	1.248	.4178	552.8	.3987-03	.4449-03
48	.86200	438.95	31.000	.4946-01	.5979-01	.6676-01	52.04	2.574	.4211	557.1	.8280-03	.9245-03
48	.86200	451.59	32.000	.1316	.1592	.1778	51.83	6.821	.4233	560.0	.2204-02	.2463-02
48	.86200	478.95	34.000	.6492-01	.7854-01	.8774-01	51.83	3.365	.4234	560.1	.1088-02	.1215-02
48	.86200	488.55	35.000	.4596-01	.5559-01	.6210-01	51.88	2.384	.4228	559.4	.7698-03	.8599-03
48	.86200	498.45	36.000	.4384-01	.5302-01	.5922-01	51.91	2.276	.4225	559.0	.7342-03	.8201-03
48	.86200	507.16	37.000	.5183-01	.6267-01	.6999-01	51.98	2.694	.4218	558.0	.8679-03	.9692-03
48	.86200	515.29	38.000	.4057-01	.4904-01	.5476-01	52.03	2.111	.4212	557.3	.6792-03	.7584-03
48	.86200	521.19	39.000	.2918-01	.3527-01	.3937-01	52.09	1.520	.4205	556.3	.4884-03	.5453-03
48	.86200	520.43	40.000	.2932-01	.3542-01	.3954-01	52.18	1.530	.4196	555.1	.4906-03	.5476-03
48	.86200	512.69	41.000	.3364-01	.4062-01	.4532-01	52.31	1.760	.4181	553.2	.5626-03	.6277-03
48	.87200	428.93	42.000	.2240-01	.2706-01	.3030-01	52.22	1.170	.4191	554.5	.3748-03	.4183-03
48	.87200	441.15	43.000	.4793-01	.5794-01	.6469-01	52.03	2.494	.4211	557.2	.8024-03	.8960-03
48	.87200	452.74	44.000	.1155	.1397	.1561	51.90	5.995	.4226	559.1	.1935-02	.2161-02
48	.87200	466.33	45.000	.1002	.1212	.1354	51.83	5.195	.4233	560.0	.1679-02	.1875-02
48	.87200	479.54	46.000	.6012-01	.7273-01	.8124-01	51.86	3.118	.4230	559.7	.1007-02	.1125-02
48	.87200	489.71	47.000	.3436-01	.4156-01	.4642-01	51.91	1.784	.4225	559.0	.5755-03	.6428-03
48	.87200	499.35	48.000	.2441-01	.2952-01	.3297-01	51.97	1.269	.4218	558.1	.4088-03	.4565-03
48	.87200	508.42	49.000	.2574-01	.3111-01	.3474-01	52.04	1.339	.4211	557.1	.4309-03	.4811-03
48	.87200	516.86	50.000	.3118-01	.3769-01	.4208-01	52.07	1.624	.4207	556.7	.5220-03	.5828-03
48	.87200	524.20	51.000	.2308-01	.2789-01	.3113-01	52.14	1.204	.4200	555.7	.3863-03	.4312-03
48	.87200	524.50	52.000	.2307-01	.2786-01	.3110-01	52.20	1.204	.4133	554.8	.3859-03	.4307-03
48	.87200	518.62	53.000	.2106-01	.2542-01	.2835-01	52.41	1.104	.4170	551.8	.3521-03	.3927-03
48	.88100	467.72	58.000	.7603-01	.9198-01	.1028	51.83	3.941	.4233	560.0	.1274-02	.1423-02
48	.88100	501.33	61.000	.9290-02	.1122-01	.1252-01	52.30	.4859	.4182	553.4	.1554-03	.1734-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG005)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
77	3.790	5.280	27.50	.0000	313.6	1325.	324.1	.4225	205.4	.1726-03	3709.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TH=540										
77	.0000	.2865										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
77	.83500	437.62	1.0000	.4071-01	.4899-01	.5454-01	54.88	2.234	.4085	551.8	.6810-03	.7582-03
77	.83500	451.57	2.0000	.1803	.2172	.2420	54.62	9.848	.4113	555.5	.3019-02	.3363-02
77	.83500	463.35	3.0000	.2699	.3253	.3625	54.47	14.70	.4129	557.6	.4521-02	.5038-02
77	.83500	474.41	4.0000	.1437	.1733	.1931	54.44	7.826	.4132	558.0	.2408-02	.2684-02
77	.83500	485.17	5.0000	.6066-01	.7313-01	.8150-01	54.41	3.300	.4135	558.4	.1016-02	.1133-02
77	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
77	.83500	495.98	8.0000	.8556-01	.1030	.1147	54.86	4.694	.4088	552.1	.1432-02	.1594-02
77	.84300	434.29	9.0000	.3609-01	.4343-01	.4636-01	54.86	1.980	.4089	552.1	.6038-03	.6722-03
77	.84300	446.10	10.000	.1089	.1313	.1463	54.53	5.940	.4123	556.8	.1824-02	.2033-02
77	.84300	459.73	11.000	.2057	.2481	.2766	54.28	11.17	.4148	560.3	.3448-02	.3844-02
77	.84300	472.01	12.000	.1956	.2359	.2631	54.22	10.61	.4154	561.0	.3279-02	.3656-02
77	.84300	482.44	13.000	.1325	.1598	.1781	54.29	7.191	.4148	560.2	.2220-02	.2475-02
77	.84300	492.89	14.000	.1097	.1323	.1474	54.33	5.958	.4144	559.6	.1838-02	.2049-02
77	.84300	501.43	15.000	.7093-01	.8552-01	.9331-01	54.41	3.859	.4135	558.5	.1188-02	.1325-02
77	.84300	508.10	16.000	.6151-01	.7415-01	.8263-01	54.45	3.349	.4131	557.9	.1030-02	.1148-02
77	.84300	510.38	17.000	.8077-01	.9727-01	.1083	54.69	4.417	.4105	554.4	.1352-02	.1506-02
77	.84300	504.13	18.000	.6501-01	.7824-01	.8711-01	54.88	3.568	.4086	551.8	.1088-02	.1211-02
77	.85400	437.47	19.000	.3447-01	.4141-01	.4604-01	55.41	1.910	.4031	544.3	.5758-03	.6403-03
77	.85400	449.66	20.000	.7440-01	.8947-01	.9956-01	55.09	4.098	.4064	548.9	.1244-02	.1384-02
77	.85400	462.41	21.000	.1572	.1891	.2105	54.92	8.632	.4081	551.2	.2629-02	.2927-02
77	.85400	475.11	22.000	.1339	.1612	.1794	54.89	7.350	.4085	551.7	.2240-02	.2494-02
77	.85400	485.84	23.000	.7343-01	.8834-01	.9833-01	54.96	4.036	.4077	550.7	.1228-02	.1367-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG006)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
77	.85400	495.69	24.000	.7764-01	.9339-01	.1039	55.02	4.271	.4072	549.9	.1298-02	.1445-02
77	.85400	504.61	25.000	.7424-01	.8928-01	.9934-01	55.08	4.089	.4065	549.0	.1241-02	.1381-02
77	.85400	512.79	26.000	.4843-01	.5823-01	.6478-01	55.16	2.672	.4056	547.8	.8095-03	.9006-03
77	.85400	517.49	27.000	.3466-01	.4166-01	.4634-01	55.27	1.916	.4045	546.3	.5793-03	.6443-03
77	.85400	514.51	28.000	.4998-01	.6003-01	.6673-01	55.46	2.772	.4025	543.6	.8347-03	.9280-03
77	.85400	506.42	29.000	.5220-01	.6264-01	.6961-01	55.68	2.906	.4003	540.6	.8712-03	.9681-03
77	.86200	427.05	30.000	.1064-01	.1277-01	.1419-01	55.66	.5822	.4004	540.8	.1776-03	.1973-03
77	.86200	438.95	31.000	.2216-01	.2663-01	.2962-01	55.25	1.224	.4077	546.5	.3703-03	.4118-03
77	.86200	451.59	32.000	.7916-01	.9524-01	.1060	54.96	4.351	.4077	550.6	.1324-02	.1474-02
77	.86200	478.95	34.000	.7613-01	.9161-01	.1020	54.92	4.181	.4082	551.3	.1273-02	.1418-02
77	.86200	488.55	35.000	.4887-01	.5879-01	.6543-01	54.99	2.687	.4074	550.2	.8172-03	.9096-03
77	.86200	498.45	36.000	.4159-01	.5003-01	.5568-01	55.01	2.288	.4072	550.0	.6956-03	.7741-03
77	.86200	507.16	37.000	.4926-01	.5923-01	.6590-01	55.11	2.715	.4062	548.5	.8235-03	.9163-03
77	.86200	515.29	38.000	.3995-01	.4802-01	.5342-01	55.21	2.206	.4051	547.1	.6677-03	.7428-03
77	.86200	521.19	39.000	.2961-01	.3558-01	.3957-01	55.29	1.637	.4043	546.0	.4947-03	.5502-03
77	.86200	520.43	40.000	.3286-01	.3947-01	.4389-01	55.41	1.821	.4030	544.3	.5489-03	.6103-03
77	.86200	512.69	41.000	.4271-01	.5127-01	.5698-01	55.62	2.376	.4050	541.4	.7130-03	.7924-03
77	.87200	441.15	42.000	.8951-02	.1075-01	.1195-01	55.47	.4965	.4024	543.5	.1495-03	.1662-03
77	.87200	452.74	43.000	.2024-01	.2433-01	.2707-01	55.22	1.118	.4071	547.0	.3383-03	.3764-03
77	.87200	466.33	44.000	.6844-01	.8233-01	.9163-01	55.02	3.766	.4071	549.8	.1145-02	.1274-02
77	.87200	479.54	45.000	.2424-01	.2911-01	.3236-01	55.48	1.345	.4023	543.3	.4048-03	.4500-03
77	.87200	489.71	46.000	.3545-01	.4264-01	.4746-01	54.95	3.694	.4079	550.9	.1125-02	.1252-02
77	.87200	499.35	47.000	.2408-01	.2896-01	.3222-01	55.10	1.327	.4073	550.1	.5928-03	.6598-03
77	.87200	508.42	48.000	.2364-01	.2866-01	.3188-01	55.17	1.315	.4063	548.7	.4026-03	.4479-03
77	.87200	516.86	49.000	.2861-01	.3438-01	.3825-01	55.24	1.580	.4056	547.8	.3984-03	.4432-03
77	.87200	524.20	50.000	.2602-01	.2646-01	.2942-01	55.35	1.219	.4037	546.7	.4781-03	.5318-03
77	.87200	524.50	51.000	.2303-01	.2766-01	.3076-01	55.44	1.277	.4028	545.2	.3679-03	.4091-03
77	.87200	518.62	52.000	.1770-01	.2124-01	.2359-01	55.79	.9877	.3991	538.9	.2954-03	.3281-03
77	.88100	467.72	53.000	.1037	.1248	.1389	54.94	5.697	.4079	550.9	.1734-02	.1931-02
77	.88100	501.33	61.000	.9886-02	.1191-01	.1326-01	54.67	.5405	.4108	554.7	.1655-03	.1843-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

(RAG006)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
80	3.879	5.280	30.00	.0000	310.1	1297.	316.8	.4184	200.8	.1749-03	3667.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2845										
80	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
80	.83500	437.62	1.0000	.1465-01	.1781-01	.1997-01	50.69	.7427	.4366	576.4	.2452-03	.2748-03
80	.83500	451.57	2.0000	.3491-01	.4247-01	.4762-01	50.54	1.764	.4382	578.6	.5845-03	.6555-03
80	.83500	463.35	3.0000	.1582	.1925	.2159	50.47	7.983	.4390	579.6	.2649-02	.2971-02
80	.83500	474.41	4.0000	.1767	.2150	.2412	50.48	8.919	.4389	579.5	.2959-02	.3319-02
80	.83500	485.17	5.0000	.9517-01	.1158	.1299	50.46	4.802	.4391	579.7	.1594-02	.1788-02
80	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
80	.83500	495.98	8.0000	.7243-01	.8804-01	.9867-01	50.75	3.676	.4360	575.6	.1212-02	.1358-02
80	.84300	434.29	9.0000	.1139-01	.1385-01	.1563-01	50.67	.5772	.4368	576.7	.1906-03	.2137-03
80	.84300	446.10	10.000	.3291-01	.4005-01	.4492-01	50.48	1.661	.4389	579.4	.5511-03	.6182-03
80	.84300	459.73	11.000	.5534-01	.6737-01	.7559-01	50.37	2.787	.4401	581.0	.9271-03	.1040-02
80	.84300	472.01	12.000	.1244	.1514	.1699	50.33	6.259	.4405	581.6	.2084-02	.2338-02
80	.84300	482.44	13.000	.1491	.1814	.2036	50.38	7.510	.4399	580.8	.2497-02	.2801-02
80	.84300	492.89	14.000	.1182	.1438	.1613	50.42	5.958	.4395	580.3	.1979-02	.2220-02
80	.84300	501.43	15.000	.8192-01	.9969-01	.1118	50.48	4.135	.4389	579.4	.1372-02	.1539-02
80	.84300	508.10	16.000	.6372-01	.7753-01	.8696-01	50.51	3.219	.4385	579.0	.1067-02	.1197-02
80	.84300	510.38	17.000	.7327-01	.8909-01	.9988-01	50.55	3.711	.4370	577.0	.1226-02	.1375-02
80	.84300	504.13	18.000	.7287-01	.8857-01	.9826-01	50.76	3.699	.4358	575.4	.1219-02	.1366-02
80	.85400	437.47	19.000	.1594-01	.1937-01	.2171-01	50.80	.8098	.4354	574.8	.2666-03	.2988-03
80	.85400	449.66	20.000	.3973-01	.4831-01	.5417-01	50.62	2.011	.4373	577.4	.6549-03	.7455-03
80	.85400	462.41	21.000	.6565-01	.7987-01	.8957-01	50.53	3.317	.4383	578.7	.1099-02	.1233-02
80	.85400	475.11	22.000	.9974-01	.1214	.1361	50.53	5.040	.4383	578.7	.1670-02	.1873-02
80	.85400	485.84	23.000	.1078	.1311	.1470	50.59	5.453	.4377	577.9	.1604-02	.2023-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
80	.85400	495.69	24.000	.8318-01	.1011	.1134	50.65	4.213	.4371	577.0	.1392-02	.1561-02
80	.85400	504.61	25.000	.6313-01	.7676-01	.8604-01	50.69	3.200	.4366	576.5	.1057-02	.1184-02
80	.85400	512.79	26.000	.4711-01	.5726-01	.6418-01	50.74	2.390	.4360	575.6	.7882-03	.8834-03
80	.85400	517.49	27.000	.3836-01	.4662-01	.5224-01	50.81	1.949	.4354	574.8	.6418-03	.7191-03
80	.85400	514.51	28.000	.5623-01	.6831-01	.7652-01	50.91	2.863	.4342	573.2	.9403-03	.1053-02
80	.85400	506.42	29.000	.6491-01	.7881-01	.8826-01	51.03	3.313	.4329	571.6	.1085-02	.1215-02
80	.86200	427.05	30.000	.5858-02	.7115-02	.7970-02	50.94	.2984	.4339	572.9	.9795-04	.1097-03
80	.86200	438.95	31.000	.1669-01	.2028-01	.2274-01	50.73	.8466	.4361	575.8	.2792-03	.3129-03
80	.86200	451.59	32.000	.5683-01	.6913-01	.7752-01	50.55	2.873	.4381	578.4	.9514-03	.1067-02
80	.86200	478.95	34.000	.7576-01	.9215-01	.1028	50.58	3.832	.4378	578.0	.1268-02	.1422-02
80	.86200	488.45	35.000	.7540-01	.9169-01	.1028	50.63	3.817	.4373	577.3	.1262-02	.1415-02
80	.86200	507.16	36.000	.5422-01	.6593-01	.7391-01	50.66	2.747	.4370	576.9	.9075-03	.1017-02
80	.86200	515.29	37.000	.4029-01	.4897-01	.5489-01	50.72	2.043	.4362	575.0	.6741-03	.7555-03
80	.86200	521.19	38.000	.3231-01	.3926-01	.4400-01	50.79	1.641	.4355	575.9	.5405-03	.6057-03
80	.86200	521.19	39.000	.2827-01	.3435-01	.3849-01	50.83	1.437	.4351	574.5	.4728-03	.5298-03
80	.86200	512.69	40.000	.3933-01	.4778-01	.5353-01	50.89	2.002	.4344	573.6	.6578-03	.7369-03
80	.86200	428.93	41.000	.5022-01	.6098-01	.6829-01	51.01	2.562	.4331	571.8	.8395-03	.9402-03
80	.87200	441.15	42.000	.7795-02	.9470-02	.1061-01	50.86	.3964	.4348	574.1	.1304-03	.1461-03
80	.87200	452.74	43.000	.1827-01	.2221-01	.2489-01	50.73	.9269	.4361	575.8	.3057-03	.3427-03
80	.87200	466.33	44.000	.5504-01	.6694-01	.7505-01	50.62	2.786	.4373	577.4	.9213-03	.1033-02
80	.87200	479.54	45.000	.2161-01	.2622-01	.2936-01	51.13	1.105	.4318	570.1	.3610-03	.4042-03
80	.87200	489.71	46.000	.6783-01	.8250-01	.9250-01	50.60	3.432	.4376	577.7	.1136-02	.1273-02
80	.87200	499.35	47.000	.5454-01	.6631-01	.7434-01	50.65	2.762	.4370	577.0	.9128-03	.1023-02
80	.87200	508.42	48.000	.3750-01	.4559-01	.5110-01	50.71	1.902	.4363	576.1	.6276-03	.7034-03
80	.87200	516.86	49.000	.2506-01	.3046-01	.3414-01	50.77	1.273	.4357	575.2	.4193-03	.4699-03
80	.87200	524.20	50.000	.2230-01	.2710-01	.3037-01	50.82	1.133	.4352	574.6	.3731-03	.4181-03
80	.87200	524.50	51.000	.2177-01	.2644-01	.2963-01	50.86	1.107	.4347	573.9	.3640-03	.4078-03
80	.87200	518.62	52.000	.2695-01	.3274-01	.3667-01	50.92	1.372	.4341	573.1	.4507-03	.5049-03
80	.87200	467.72	53.000	.1291-01	.1567-01	.1755-01	51.14	.6604	.4318	570.0	.2158-03	.2416-03
80	.88100	501.33	58.000	.9547-01	.1161	.1302	50.60	4.831	.4376	577.7	.1598-02	.1792-02
80	.88100		61.000	.1307-01	.1589-01	.1780-01	50.82	.6645	.4352	574.6	.2187-03	.2451-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
46	4.929	5.280	20.00	.0000	415.3	1340.	327.9	.5589	207.8	.2257-03	3731.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3299										
46	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
46	.83500	437.62	1.0000	.7944-01	.9544-01	.1061	64.49	5.123	.4036	551.6	.1162-02	.1292-02
46	.83500	451.57	2.0000	.2126	.2558	.2848	64.00	13.61	.4079	557.5	.3113-02	.3466-02
46	.83500	453.35	3.0000	.2649	.3191	.3555	63.64	16.86	.4112	561.9	.3883-02	.4326-02
46	.83500	474.41	4.0000	.1449	.1746	.1945	63.58	9.211	.4118	562.8	.2124-02	.2366-02
46	.83500	485.17	5.0000	.6750-01	.8136-01	.9066-01	63.48	4.285	.4127	564.0	.9898-03	.1103-02
46	.83500	497.18	7.0000	.5602-01	.6750-01	.7521-01	63.53	3.559	.4122	563.3	.8213-03	.9151-03
46	.83500	495.98	8.0000	.5220-01	.6277-01	.6883-01	64.25	3.354	.4057	554.5	.7640-03	.8499-03
46	.84300	434.29	9.0000	.5604-01	.6751-01	.7521-01	63.62	3.565	.4114	562.2	.8214-03	.9151-03
46	.84300	446.10	10.000	.2553	.3074	.3423	63.81	16.29	.4096	559.8	.3740-02	.4165-02
46	.84300	459.73	11.000	.2700	.3255	.3628	63.36	17.11	.4137	565.4	.3960-02	.4414-02
46	.84300	472.01	12.000	.2820	.3401	.3792	63.23	17.83	.4149	567.0	.4137-02	.4613-02
46	.84300	482.44	13.000	.2253	.2717	.3029	63.31	14.27	.4142	566.0	.3306-02	.3685-02
46	.84300	492.89	14.000	.1224	.1475	.1645	63.30	7.745	.4143	566.2	.1795-02	.2001-02
46	.84300	501.43	15.000	.7451-01	.8977-01	.1000	63.56	4.736	.4119	563.0	.1092-02	.1217-02
46	.84300	508.10	16.000	.7087-01	.8542-01	.9518-01	63.48	4.499	.4126	563.9	.1039-02	.1158-02
46	.84300	510.38	17.000	.6989-01	.8415-01	.9372-01	63.75	4.455	.4102	560.6	.1024-02	.1140-02
46	.84300	504.13	18.000	.5306-01	.6381-01	.7100-01	64.19	3.406	.4063	555.3	.7766-03	.8641-03
46	.85400	437.47	19.000	.1219	.1466	.1632	64.12	7.817	.4070	555.2	.1785-02	.1986-02
46	.85400	449.66	20.000	.2227	.1999	.2227	63.55	10.54	.4120	563.0	.2432-02	.2710-02
46	.85400	462.41	21.000	.1538	.1855	.2068	63.24	9.729	.4147	566.8	.2257-02	.2516-02
46	.85400	475.11	22.000	.1459	.1760	.1963	63.16	9.216	.4155	567.9	.2141-02	.2388-02
46	.85400	485.84	23.000	.1235	.1489	.1660	63.24	7.807	.4148	566.9	.1811-02	.2020-02

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(RAG007)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
46	.85400	495.69	24.000	.1300	.1568	.1747	63.32	8.232	.4141	565.9	.1907-02	.2126-02
46	.85400	504.61	25.000	.8261-01	.9959-01	.1110	63.40	5.237	.4134	565.0	.1212-02	.1350-02
46	.85400	512.79	26.000	.5667-01	.6828-01	.7608-01	63.55	3.601	.4121	563.1	.8308-03	.9256-03
46	.85400	517.49	27.000	.5072-01	.6108-01	.6803-01	63.71	3.231	.4106	561.1	.7433-03	.8278-03
46	.85400	514.51	28.000	.5583-01	.6718-01	.7478-01	63.97	3.572	.4082	557.9	.8176-03	.9101-03
46	.85400	506.42	29.000	.5103-01	.6135-01	.6825-01	64.29	3.281	.4054	554.1	.7468-03	.8308-03
46	.86200	427.05	30.000	.3298-01	.3960-01	.4402-01	64.67	2.133	.4020	549.4	.4821-03	.5359-03
46	.86200	438.95	31.000	.8725-01	.1050	.1170	63.83	5.569	.4095	559.6	.1278-02	.1423-02
46	.86200	451.59	32.000	.1169	.1409	.1571	63.32	7.401	.4140	565.9	.1715-02	.1911-02
46	.86200	478.95	34.000	.8080-01	.9745-01	.1086	63.25	5.111	.4147	566.7	.1185-02	.1322-02
46	.86200	488.55	35.000	.6688-01	.8065-01	.8990-01	63.30	4.234	.4142	566.1	.9811-03	.1094-02
46	.86200	498.45	36.000	.7320-01	.8827-01	.9839-01	63.32	4.635	.4141	565.9	.1074-02	.1197-02
46	.86200	507.16	37.000	.6892-01	.8306-01	.9255-01	63.49	4.376	.4125	563.8	.1011-02	.1126-02
46	.86200	515.29	38.000	.4652-01	.5604-01	.6242-01	63.62	2.959	.4114	562.2	.6818-03	.7595-03
46	.86200	521.19	39.000	.3921-01	.4722-01	.5259-01	63.75	2.500	.4103	560.7	.5746-03	.6399-03
46	.86200	520.43	40.000	.4590-01	.5524-01	.6149-01	63.95	2.935	.4084	558.2	.6722-03	.7483-03
46	.86200	512.69	41.000	.4977-01	.5985-01	.6659-01	64.22	3.196	.4061	554.9	.7284-03	.8105-03
46	.87200	441.15	42.000	.3045-01	.3660-01	.4071-01	64.35	1.959	.4049	553.3	.4455-03	.4955-03
46	.87200	452.74	43.000	.6934-01	.8349-01	.9298-01	63.79	4.423	.4099	560.2	.1016-02	.1131-02
46	.87200	465.33	44.000	.9866-01	.1189	.1325	63.46	6.261	.4128	564.2	.1447-02	.1612-02
46	.87200	479.54	45.000	.9810-01	.1183	.1319	63.25	6.205	.4147	566.7	.1439-02	.1605-02
46	.87200	489.71	46.000	.6988-01	.8427-01	.9394-01	63.28	4.422	.4144	566.4	.1025-02	.1143-02
46	.87200	499.35	47.000	.4425-01	.5335-01	.5947-01	63.36	2.804	.4137	565.4	.6491-03	.7235-03
46	.87200	508.42	48.000	.3611-01	.4352-01	.4850-01	63.46	2.292	.4128	564.2	.5295-03	.5901-03
46	.87200	516.86	49.000	.4205-01	.5066-01	.5643-01	63.61	2.674	.4115	562.4	.6163-03	.6866-03
46	.87200	524.20	50.000	.3750-01	.4517-01	.5031-01	63.69	2.389	.4107	561.3	.5496-03	.6122-03
46	.87200	524.50	51.000	.3007-01	.3619-01	.4030-01	63.87	1.920	.4092	559.2	.4405-03	.4904-03
46	.87200	518.62	52.000	.3329-01	.4005-01	.4458-01	64.04	2.132	.4077	557.1	.4874-03	.5425-03
46	.88100	467.72	53.000	.3294-01	.3957-01	.4399-01	64.53	2.125	.4033	551.1	.4816-03	.5356-03
46	.88100	501.33	58.000	.8534-01	.1029	.1148	63.22	5.395	.4149	567.1	.1252-02	.1366-02
46	.88100		61.000	.1343-01	.1615-01	.1798-01	64.08	.8604	.4073	556.6	.1966-03	.2188-03

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(RAG007)

OHS POD (60-0)

OH110, MODEL 60-0, OHS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
49	5.104	5.280	25.00	.0000	407.8	1297.	316.7	.5503	200.7	.2301-03	3666.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
49	.0000	.3262										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
49	.83500	437.62	1.0000	.4962-01	.5993-01	.6687-01	60.02	2.979	.4186	552.4	.7199-03	.8033-03
49	.83500	451.57	2.0000	.1948	.2356	.2631	59.68	11.63	.4218	556.7	.2829-02	.3160-02
49	.83500	463.35	3.0000	.2246	.2717	.3036	59.45	13.35	.4240	559.5	.3263-02	.3646-02
49	.83500	474.41	4.0000	.1081	.1309	.1462	59.42	6.425	.4243	559.9	.1572-02	.1756-02
49	.83500	485.17	5.0000	.6073-01	.7352-01	.8217-01	59.34	3.604	.4250	560.8	.8828-03	.9867-03
49	.83500	497.18	7.0000	.1126	.1363	.1524	59.24	6.670	.4259	562.1	.1637-02	.1830-02
49	.83500	495.98	8.0000	.8716-01	.1054	.1177	59.70	5.203	.4216	556.4	.1266-02	.1413-02
49	.84300	434.29	9.0000	.7833-01	.9479-01	.1059	59.43	4.655	.4241	559.7	.1138-02	.1272-02
49	.84300	446.10	10.000	.1593	.1927	.2153	59.53	9.483	.4232	558.6	.2314-02	.2586-02
49	.84300	459.73	11.000	.2023	.2450	.2738	59.26	11.99	.4258	561.9	.2941-02	.3288-02
49	.84300	472.01	12.000	.1754	.2124	.2375	59.17	10.38	.4266	563.0	.2551-02	.2852-02
49	.84300	482.44	13.000	.1349	.1633	.1826	59.23	7.989	.4260	562.2	.1961-02	.2193-02
49	.84300	492.89	14.000	.8795-01	.1065	.1190	59.26	5.212	.4257	561.8	.1279-02	.1429-02
49	.84300	501.43	15.000	.6696-01	.8106-01	.9060-01	59.31	3.971	.4253	561.3	.9733-03	.1088-02
49	.84300	508.10	16.000	.6559-01	.7938-01	.8871-01	59.39	3.895	.4245	560.2	.9532-03	.1065-02
49	.84300	510.38	17.000	.7332-01	.8867-01	.9904-01	59.61	4.371	.4224	557.5	.1065-02	.1189-02
49	.84300	504.13	18.000	.5779-01	.6983-01	.7795-01	59.87	3.460	.4200	554.3	.8387-03	.9363-03
49	.85400	437.47	19.000	.6461-01	.7810-01	.8720-01	59.75	3.860	.4211	555.8	.9380-03	.1047-02
49	.85400	449.66	20.000	.1364	.1652	.1846	59.36	8.099	.4248	560.6	.1983-02	.2216-02
49	.85400	462.41	21.000	.1445	.1751	.1957	59.16	8.549	.4267	563.1	.2102-02	.2350-02
49	.85400	475.11	22.000	.1074	.1301	.1454	59.11	6.346	.4271	563.7	.1562-02	.1746-02
49	.85400	485.84	23.000	.7972-01	.9655-01	.1079	59.20	4.719	.4263	562.6	.1159-02	.1296-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG007)

OH110, MODEL 60-O, OWS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
49	.85400	495.69	24.000	.8550-01	.1035	.1157	59.27	5.067	.4257	561.8	.1243-02	.1390-02
49	.85400	504.61	25.000	.6597-01	.7986-01	.8926-01	59.34	3.315	.4250	560.9	.9590-03	.1072-02
49	.85400	512.79	26.000	.4568-01	.5529-01	.6178-01	59.43	2.715	.4241	559.8	.6639-03	.7418-03
49	.85400	517.49	27.000	.3115-01	.3768-01	.4210-01	59.54	1.855	.4231	558.4	.4526-03	.5056-03
49	.85400	514.51	28.000	.4343-01	.5251-01	.5863-01	59.74	2.595	.4212	555.8	.6306-03	.7041-03
49	.85400	506.42	29.000	.4916-01	.5938-01	.6627-01	59.98	2.948	.4190	553.0	.7133-03	.7960-03
49	.86200	427.05	30.000	.2800-01	.3381-01	.3772-01	60.11	1.683	.4177	551.3	.4062-03	.4531-03
49	.86200	438.95	31.000	.5754-01	.6960-01	.7775-01	59.58	3.428	.4228	557.9	.8359-03	.9337-03
49	.86200	451.59	32.000	.1352	.1637	.1830	59.22	8.007	.4261	562.4	.1956-02	.2198-02
49	.86200	478.95	34.000	.6419-01	.7775-01	.8693-01	59.19	3.799	.4264	562.7	.9335-03	.1044-02
49	.86200	488.55	35.000	.4873-01	.5901-01	.6597-01	59.25	2.887	.4258	562.0	.7086-03	.7921-03
49	.86200	498.45	36.000	.5103-01	.6178-01	.6905-01	59.30	3.026	.4254	561.4	.7418-03	.8292-03
49	.86200	507.16	37.000	.5246-01	.6349-01	.7095-01	59.41	3.116	.4243	560.0	.7624-03	.8519-03
49	.86200	515.29	38.000	.3727-01	.4509-01	.5038-01	59.50	2.217	.4235	558.9	.5415-03	.6050-03
49	.86200	521.19	39.000	.2705-01	.3272-01	.3655-01	59.59	1.612	.4226	557.8	.3930-03	.4389-03
49	.86200	520.43	40.000	.2960-01	.3578-01	.3996-01	59.74	1.768	.4213	556.0	.4298-03	.4799-03
49	.86200	512.69	41.000	.4106-01	.4960-01	.5536-01	59.95	2.461	.4193	553.3	.5958-03	.6649-03
49	.87200	428.93	42.000	.2809-01	.3394-01	.3788-01	59.89	1.682	.4198	554.0	.4076-03	.4550-03
49	.87200	441.15	43.000	.5725-01	.6925-01	.7736-01	59.54	3.409	.4231	558.4	.8316-03	.9290-03
49	.87200	452.74	44.000	.1217	.1473	.1646	59.31	7.216	.4253	561.3	.1769-02	.1977-02
49	.87200	466.33	45.000	.1006	.1218	.1362	59.22	5.957	.4261	562.4	.1463-02	.1635-02
49	.87200	479.54	46.000	.6077-01	.7353-01	.8227-01	59.23	3.600	.4260	562.2	.8836-03	.9878-03
49	.87200	489.71	47.000	.3547-01	.4294-01	.4799-01	59.31	2.103	.4253	561.3	.5156-03	.5763-03
49	.87200	499.35	48.000	.2717-01	.3288-01	.3674-01	59.39	1.613	.4245	560.2	.3948-03	.4412-03
49	.87200	508.42	49.000	.3064-01	.3731-01	.4169-01	59.51	1.835	.4234	558.8	.4481-03	.5006-03
49	.87200	516.86	50.000	.3113-01	.3765-01	.4206-01	59.56	1.854	.4229	558.1	.4522-03	.5051-03
49	.87200	524.20	51.000	.2301-01	.2782-01	.3107-01	59.67	1.373	.4219	556.8	.3341-03	.3731-03
49	.87200	524.50	52.000	.2343-01	.2832-01	.3161-01	59.79	1.401	.4208	555.3	.3421-03	.3797-03
49	.87200	518.62	53.000	.2161-01	.2609-01	.2910-01	60.12	1.299	.4177	551.2	.3134-03	.3486-03
49	.88100	467.72	58.000	.7626-01	.9236-01	.1033	59.20	4.514	.4263	562.6	.1109-02	.1240-02
49	.88100	501.33	61.000	.9426-02	.1139-01	.1272-01	59.81	.5638	.4206	555.1	.1368-03	.1528-03

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OH110, MODEL 60-0, OMS POD

(RAG0007)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
78	5.048	5.280	27.50	.0000	409.5	1309.	319.8	.5521	202.7	.2286-03	3684.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540 .3271
78	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
78	.83500	437.62	1.0000	.3712-01	.4503-01	.5041-01	59.40	2.205	.4312	574.7	.5428-03	.6076-03
78	.83500	451.57	2.0000	.1699	.2063	.2311	59.11	10.04	.4339	578.3	.2487-02	.2785-02
78	.83500	463.35	3.0000	.2575	.3129	.3507	58.96	15.18	.4353	580.2	.3771-02	.4225-02
78	.83500	474.41	4.0000	.1382	.1679	.1881	58.95	8.145	.4354	580.3	.2023-02	.2267-02
78	.83500	485.17	5.0000	.5917-01	.7191-01	.8060-01	58.90	3.485	.4358	580.9	.8665-03	.9711-03
78	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
78	.83500	495.98	8.0000	.9094-01	.1103	.1235	59.37	5.399	.4315	575.1	.1330-02	.1489-02
78	.84300	434.29	9.0000	.3657-01	.4438-01	.4969-01	58.35	2.170	.4317	575.4	.5349-03	.5989-03
78	.84300	446.10	10.000	.1068	.1297	.1454	58.99	6.298	.4351	579.8	.1563-02	.1752-02
78	.84300	459.73	11.000	.1885	.2293	.2570	58.75	11.08	.4373	582.8	.2762-02	.3097-02
78	.84300	472.01	12.000	.1833	.2229	.2500	58.70	10.76	.4378	583.4	.2686-02	.3012-02
78	.84300	482.44	13.000	.1160	.1411	.1581	58.78	6.818	.4370	582.4	.1700-02	.1905-02
78	.84300	492.89	14.000	.9254-01	.1125	.1261	58.82	5.444	.4366	581.9	.1356-02	.1520-02
78	.84300	501.43	15.000	.6389-01	.7765-01	.8702-01	58.91	3.764	.4358	580.8	.9356-03	.1049-02
78	.84300	508.10	16.000	.6321-01	.7682-01	.8608-01	58.95	3.726	.4354	580.3	.9256-03	.1037-02
78	.84300	510.38	17.000	.8567-01	.1040	.1165	59.20	5.072	.4331	577.3	.1254-02	.1404-02
78	.84300	504.13	18.000	.6462-01	.7841-01	.8777-01	59.40	3.839	.4312	574.7	.9450-03	.1058-02
78	.85400	437.47	19.000	.3512-01	.4252-01	.4753-01	60.04	2.109	.4253	566.8	.5127-03	.5730-03
78	.85400	449.66	20.000	.7432-01	.9008-01	.1008	59.70	4.437	.4285	571.0	.1086-02	.1215-02
78	.85400	462.41	21.000	.1456	.1766	.1976	59.53	8.670	.4300	573.1	.2129-02	.2382-02
78	.85400	475.11	22.000	.1315	.1594	.1784	59.53	7.826	.4300	573.1	.1922-02	.2151-02
78	.85400	485.84	23.000	.7155-01	.8675-01	.9705-01	59.62	4.266	.4292	572.0	.1046-02	.1170-02

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OH110, MODEL 60-0, OMS POD (RAG007)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
78	.85400	495.69	24.000	.6678-01	.8094-01	.9054-01	59.70	3.986	.4285	571.1	.9757-03	.1091-02
78	.85400	504.61	25.000	.6122-01	.7419-01	.8298-01	59.75	3.658	.4279	571.4	.8944-03	.1000-02
78	.85400	512.79	26.000	.4349-01	.5269-01	.5892-01	59.85	2.603	.4271	569.2	.6352-03	.7103-03
78	.85400	517.49	27.000	.3375-01	.4088-01	.4570-01	59.95	2.024	.4261	567.9	.4928-03	.5509-03
78	.85400	514.51	28.000	.4919-01	.5954-01	.6653-01	60.14	2.959	.4244	565.6	.7178-03	.8022-03
78	.85400	506.42	29.000	.5257-01	.6358-01	.7101-01	60.36	3.173	.4223	562.9	.7667-03	.8563-03
78	.86200	427.05	30.000	.1094-01	.1323-01	.1477-01	60.32	.6596	.4227	563.4	.1595-03	.1782-03
78	.86200	438.95	31.000	.2192-01	.2655-01	.2968-01	59.89	1.313	.4267	568.6	.3201-03	.3579-03
78	.86200	451.59	32.000	.8018-01	.9722-01	1.088	59.58	4.777	.4296	572.5	.1172-02	.1311-02
78	.86200	478.95	34.000	.7444-01	.9026-01	1.010	59.61	4.437	.4293	572.2	.1088-02	.1217-02
78	.86200	488.55	35.000	.4942-01	.5990-01	.6701-01	59.69	2.950	.4286	571.2	.7220-03	.8077-03
78	.86200	498.45	36.000	.4012-01	.4863-01	.5440-01	59.71	2.396	.4283	570.9	.5862-03	.6557-03
78	.86200	507.16	37.000	.4096-01	.4963-01	.5550-01	59.82	2.450	.4273	569.6	.5983-03	.6691-03
78	.86200	515.29	38.000	.3315-01	.4015-01	.4489-01	59.91	1.986	.4265	568.4	.4841-03	.5412-03
78	.86200	521.19	39.000	.2826-01	.3422-01	.3826-01	59.99	1.696	.4258	567.5	.4126-03	.4612-03
78	.86200	520.43	40.000	.3189-01	.3860-01	.4313-01	60.10	1.916	.4247	566.1	.4654-03	.5201-03
78	.86200	512.69	41.000	.4119-01	.4982-01	.5565-01	60.31	2.484	.4227	563.4	.6007-03	.6710-03
78	.87200	428.93	42.000	.8531-02	.1032-01	.1154-01	60.13	.5129	.4245	565.8	.1245-03	.1391-03
78	.87200	441.15	43.000	.1919-01	.2324-01	.2599-01	59.88	1.149	.4268	568.8	.2802-03	.3133-03
78	.87200	452.74	44.000	.6759-01	.8193-01	.9166-01	59.67	4.033	.4287	571.4	.9876-03	.1105-02
78	.87200	466.33	45.000	.1793-01	.2169-01	.2423-01	60.34	3.971	.4290	563.4	.2615-03	.2921-03
78	.87200	479.54	46.000	.6658-01	.8072-01	.9031-01	59.64	3.971	.4290	571.7	.9730-03	.1089-02
78	.87200	489.71	47.000	.3642-01	.4413-01	.4937-01	59.73	2.175	.4282	570.7	.5320-03	.5951-03
78	.87200	499.35	48.000	.2414-01	.2924-01	.3270-01	59.82	1.444	.4273	569.5	.3525-03	.3942-03
78	.87200	508.42	49.000	.2055-01	.2537-01	.2837-01	59.90	1.255	.4266	568.6	.3059-03	.3420-03
78	.87200	516.86	50.000	.2326-01	.2817-01	.3149-01	59.97	1.395	.4260	567.7	.3396-03	.3796-03
78	.87200	524.20	51.000	.1952-01	.2363-01	.2641-01	60.06	1.172	.4251	566.6	.2849-03	.3184-03
78	.87200	524.50	52.000	.2245-01	.2717-01	.3036-01	60.16	1.350	.4242	565.4	.3276-03	.3660-03
78	.87200	518.62	53.000	.1677-01	.2026-01	.2262-01	60.55	1.015	.4206	560.5	.2444-03	.2728-03
78	.88100	467.72	58.000	.9676-01	.1173	.1312	59.63	5.770	.4291	571.9	.1414-02	.1582-02
78	.88100	501.33	61.000	.9740-02	.1182-01	.1323-01	59.39	.5784	.4313	574.9	.1424-03	.1594-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG007)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
79	4.997	5.280	30.00	.0000	408.0	1314.	321.2	.5499	203.6	.2267-03	3692.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TH=540										
79	.0000	.3266										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QOOT BTU/ FT ² SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
79	.83500	437.62	1.0000	.2022-01	.2451-01	.2742-01	59.88	1.211	.4283	573.4	.2968-03	.3320-03
79	.83500	451.57	2.0000	.6113-01	.7417-01	.8302-01	59.59	3.643	.4310	577.0	.8979-03	.1005-02
79	.83500	463.35	3.0000	.2124	.2579	.2888	59.40	12.62	.4328	579.3	.3122-02	.3496-02
79	.83500	474.41	4.0000	.1925	.2337	.2617	59.40	11.43	.4328	579.3	.2829-02	.3168-02
79	.83500	485.17	5.0000	.9421-01	.1144	.1281	59.36	5.592	.4331	579.8	.1365-02	.1551-02
79	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
79	.83500	495.98	8.0000	.8850-01	.1073	.1200	59.87	5.298	.4284	573.4	.1299-02	.1453-02
79	.84300	434.29	9.0000	.1658-01	.2009-01	.2248-01	59.84	.9919	.4287	573.8	.2433-03	.2722-03
79	.84300	446.10	10.000	.4676-01	.5676-01	.6355-01	59.46	2.781	.4322	578.5	.6871-03	.7693-03
79	.84300	459.73	11.000	.8041-01	.9768-01	.1094	59.22	4.762	.4344	581.5	.1182-02	.1325-02
79	.84300	472.01	12.000	.1509	.1834	.2055	59.15	8.929	.4351	582.4	.2487-02	.2722-02
79	.84300	482.44	13.000	.1379	.1676	.1877	59.21	8.168	.4345	581.6	.2028-02	.2272-02
79	.84300	492.89	14.000	.1142	.1387	.1554	59.27	6.771	.4339	580.9	.1679-02	.1881-02
79	.84300	501.43	15.000	.8448-01	.1026	.1149	59.38	5.016	.4329	579.5	.1242-02	.1390-02
79	.84300	508.10	16.000	.6908-01	.8385-01	.9389-01	59.43	4.105	.4325	579.0	.1015-02	.1137-02
79	.84300	510.38	17.000	.7476-01	.9067-01	.1015	59.67	4.461	.4303	575.9	.1098-02	.1229-02
79	.84300	504.13	18.000	.8033-01	.9736-01	.1089	59.90	4.812	.4281	573.1	.1179-02	.1319-02
79	.85400	437.47	19.000	.2090-01	.2534-01	.2835-01	59.76	1.249	.4294	574.8	.3068-03	.3433-03
79	.85400	449.66	20.000	.5113-01	.6207-01	.6950-01	59.44	3.039	.4324	578.9	.7514-03	.8414-03
79	.85400	462.41	21.000	.8577-01	.1041	.1166	59.37	5.092	.4330	579.7	.1261-02	.1412-02
79	.85400	475.11	22.000	.1174	.1424	.1595	59.44	6.975	.4324	578.8	.1724-02	.1931-02
79	.85400	485.84	23.000	.9801-01	.1189	.1331	59.65	5.846	.4304	576.2	.1439-02	.1611-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, OHS POD (RAG007)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
79	.85400	495.69	24.000	.7570-01	.9191-01	.1029	59.35	4.493	.4332	579.9	.1113-02	.1246-02
79	.85400	504.61	25.000	.6488-01	.7876-01	.8819-01	59.44	3.857	.4323	578.7	.9534-03	.1068-02
79	.85400	512.79	26.000	.4842-01	.5876-01	.6578-01	59.54	2.883	.4314	577.5	.7113-03	.7963-03
79	.85400	517.49	27.000	.3840-01	.4658-01	.5212-01	59.67	2.291	.4302	575.9	.5639-03	.6311-03
79	.85400	514.51	28.000	.5687-01	.6772-01	.7575-01	59.86	3.344	.4285	573.6	.8199-03	.9172-03
79	.85400	506.42	29.000	.6742-01	.8165-01	.9128-01	60.12	4.054	.4261	570.4	.9888-03	.1105-02
79	.86200	427.05	30.000	.6858-02	.8306-02	.9286-02	60.08	4.121	.4264	570.8	.1006-03	.1125-03
79	.86200	438.95	31.000	.2128-01	.2582-01	.2890-01	59.63	1.269	.4307	576.5	.3126-03	.3499-03
79	.86200	451.53	32.000	.7128-01	.8656-01	.9696-01	59.31	4.228	.4336	580.4	.1048-02	.1174-02
79	.86200	478.95	34.000	.7779-01	.9447-01	.1058	59.31	4.613	.4336	580.5	.1144-02	.1281-02
79	.86200	488.55	35.000	.6802-01	.8257-01	.9246-01	59.43	4.042	.4325	579.0	.9995-03	.1119-02
79	.86200	498.45	36.000	.4935-01	.5990-01	.6707-01	59.46	2.934	.4322	578.6	.7251-03	.8119-03
79	.86200	507.16	37.000	.3937-01	.4850-01	.5429-01	59.57	2.381	.4312	577.2	.5871-03	.6572-03
79	.86200	515.29	38.000	.3366-01	.4083-01	.4569-01	59.68	2.009	.4302	575.8	.4943-03	.5531-03
79	.86200	521.19	39.000	.2953-01	.3580-01	.4006-01	59.79	1.766	.4291	574.4	.4335-03	.4850-03
79	.86200	520.43	40.000	.3827-01	.4638-01	.5188-01	59.89	2.292	.4282	573.2	.5616-03	.6282-03
79	.86200	512.69	41.000	.4855-01	.5879-01	.6572-01	60.16	2.921	.4258	569.9	.7119-03	.7958-03
79	.87200	428.93	42.000	.9397-02	.1138-01	.1273-01	59.99	5.637	.4273	572.0	.1379-03	.1542-03
79	.87200	441.15	43.000	.2196-01	.2663-01	.2980-01	59.70	1.311	.4299	575.5	.3225-03	.3609-03
79	.87200	452.74	44.000	.6975-01	.8466-01	.9479-01	59.48	4.149	.4320	578.3	.1025-02	.1147-02
79	.87200	466.33	45.000	.1930-01	.2336-01	.2610-01	60.28	1.163	.4266	568.3	.2829-03	.3161-03
79	.87200	479.54	46.000	.6752-01	.8195-01	.9176-01	59.47	4.015	.4321	578.5	.9921-03	.1111-02
79	.87200	489.71	47.000	.4854-01	.5889-01	.6592-01	59.56	2.891	.4313	577.3	.7130-03	.7981-03
79	.87200	499.35	48.000	.3324-01	.4033-01	.4513-01	59.64	1.983	.4305	576.3	.4882-03	.5464-03
79	.87200	508.42	49.000	.2413-01	.2926-01	.3274-01	59.74	1.441	.4296	575.1	.3542-03	.3964-03
79	.87200	516.86	50.000	.2250-01	.2728-01	.3052-01	59.81	1.346	.4290	574.3	.3303-03	.3696-03
79	.87200	524.20	51.000	.2242-01	.2717-01	.3038-01	59.99	1.345	.4273	572.0	.3290-03	.3679-03
79	.87200	524.50	52.000	.2500-01	.3028-01	.3385-01	60.11	1.503	.4262	570.5	.3667-03	.4100-03
79	.87200	518.62	53.000	.1444-01	.1746-01	.1950-01	60.46	.828	.4229	566.1	.2115-03	.2362-03
79	.88100	467.72	58.000	.1008	.1224	.1371	59.32	5.979	.4335	580.2	.1481-02	.1659-02
79	.88100	501.33	61.000	.1166-01	.1414-01	.1582-01	59.76	.6970	.4294	574.9	.1712-03	.1916-03

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(RAG008)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
81	5.114	5.280	25.00	.0000	407.8	1295.	316.2	.5502	200.4	.2304-03	3664.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3261
81	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
81	.83500	437.62	1.0000	.5119-01	.6242-01	.7011-01	57.22	2.929	.4441	585.2	.7482-03	.8403-03
81	.83500	451.57	2.0000	.2185	.2667	.2997	56.96	12.45	.4465	588.4	.3195-02	.3592-02
81	.83500	463.35	3.0000	.2350	.2869	.3226	56.81	13.35	.4480	590.3	.3438-02	.3866-02
81	.83500	474.41	4.0000	.1137	.1389	.1561	56.81	6.460	.4479	590.3	.1664-02	.1871-02
81	.83500	485.17	5.0000	.6347-01	.7752-01	.8717-01	56.78	3.604	.4482	590.7	.9289-03	.1045-02
81	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
81	.83500	495.98	8.0000	.1016	.1239	.1392	57.22	5.816	.4440	585.2	.1485-02	.1668-02
81	.84300	434.29	9.0000	.6107-01	.7448-01	.8366-01	57.18	3.492	.4445	585.8	.8926-03	.1003-02
81	.84300	446.10	10.000	.1759	.2147	.2414	56.85	9.997	.4476	589.8	.2573-02	.2893-02
81	.84300	459.73	11.000	.2062	.2519	.2834	56.66	11.68	.4494	592.2	.3019-02	.3396-02
81	.84300	472.01	12.000	.1689	.2065	.2323	56.60	9.562	.4499	592.9	.2474-02	.2783-02
81	.84300	482.44	13.000	.1451	.1773	.1995	56.68	8.226	.4492	591.9	.2125-02	.2390-02
81	.84300	492.89	14.000	.1053	.1287	.1447	56.72	5.973	.4488	591.4	.1542-02	.1734-02
81	.84300	501.43	15.000	.7530-01	.9196-01	.1034	56.80	4.277	.4480	590.5	.1102-02	.1239-02
81	.84300	508.10	16.000	.6096-01	.7443-01	.8368-01	56.85	3.465	.4476	589.8	.8919-03	.1003-02
81	.84300	510.38	17.000	.8116-01	.9901-01	.1113	57.06	4.631	.4455	587.2	.1187-02	.1333-02
81	.84300	504.13	18.000	.5574-01	.6796-01	.7632-01	57.25	3.191	.4438	584.9	.8145-03	.9148-03
81	.85400	437.47	19.000	.6711-01	.8174-01	.9175-01	57.50	3.859	.4414	581.7	.9799-03	.1100-02
81	.85400	449.66	20.000	.1406	.1715	.1926	57.22	8.046	.4441	585.3	.2055-02	.2368-02
81	.85400	462.41	21.000	.1442	.1758	.1976	57.11	8.233	.4451	586.6	.2108-02	.2368-02
81	.85400	475.11	22.000	.1016	.1239	.1392	57.13	5.803	.4449	586.4	.1485-02	.1668-02
81	.85400	485.84	23.000	.7519-01	.9167-01	.1030	57.24	4.303	.4439	585.0	.1099-02	.1234-02

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

(RAC008)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H1	TW DEG. R	STN NO R=.90	STN NO R=.850
81	.85400	495.69	24.000	.9113-01	.1111	.1248	57.19	5.211	.4444	585.6	.1332-02	.1496-02
81	.85400	504.61	25.000	.7539-01	.9191-01	.1032	57.26	4.317	.4437	584.8	.1102-02	.1237-02
81	.85400	512.79	26.000	.4914-01	.5989-01	.6724-01	57.34	2.818	.4429	583.7	.7178-03	.8060-03
81	.85400	517.49	27.000	.3281-01	.3997-01	.4487-01	57.44	1.885	.4420	582.5	.4791-03	.5378-03
81	.85400	514.51	28.000	.4329-01	.5270-01	.5914-01	57.61	2.494	.4404	580.4	.6318-03	.7090-03
81	.85400	506.42	29.000	.4465-01	.5432-01	.6032-01	57.83	2.582	.4383	577.6	.6513-03	.7304-03
81	.86200	427.05	30.000	.2607-01	.3173-01	.3559-01	57.76	1.506	.4390	578.6	.3804-03	.4267-03
81	.86200	438.95	31.000	.5573-01	.6792-01	.7625-01	57.38	3.198	.4425	583.2	.8141-03	.9140-03
81	.86200	451.59	32.000	.1384	.1688	.1896	57.10	7.899	.4452	586.8	.2023-02	.2273-02
81	.86200	478.95	34.000	.5796-01	.7070-01	.7942-01	57.14	3.312	.4449	586.3	.8473-03	.9519-03
81	.86200	488.55	35.000	.4417-01	.5386-01	.6049-01	57.21	2.527	.4442	585.4	.6455-03	.7250-03
81	.86200	498.45	36.000	.4779-01	.5827-01	.6544-01	57.25	2.736	.4438	584.8	.6984-03	.7844-03
81	.86200	507.16	37.000	.5618-01	.6847-01	.7688-01	57.34	3.221	.4429	583.7	.8207-03	.9215-03
81	.86200	515.29	38.000	.4089-01	.4982-01	.5592-01	57.44	2.349	.4420	582.4	.5972-03	.6704-03
81	.86200	521.19	39.000	.2899-01	.3532-01	.3964-01	57.51	1.668	.4413	581.6	.4234-03	.4752-03
81	.86200	520.43	40.000	.2877-01	.3502-01	.3930-01	57.61	1.657	.4404	580.4	.4199-03	.4711-03
81	.86200	512.69	41.000	.3913-01	.4760-01	.5338-01	57.83	2.263	.4383	577.7	.5707-03	.6400-03
81	.87200	428.93	42.000	.2415-01	.2941-01	.3299-01	57.64	1.392	.4401	580.0	.3525-03	.3955-03
81	.87200	441.15	43.000	.5252-01	.6400-01	.7184-01	57.42	3.016	.4422	582.8	.7671-03	.8612-03
81	.87200	452.74	44.000	.1205	.1469	.1650	57.23	6.897	.4440	585.1	.1761-02	.1978-02
81	.87200	466.33	45.000	.1966-01	.2390-01	.2680-01	57.96	1.139	.4443	585.5	.2865-03	.3213-03
81	.87200	479.54	46.000	.5449-01	.6645-01	.7464-01	57.20	3.117	.4435	584.5	.7984-03	.8946-03
81	.87200	489.71	47.000	.3075-01	.3749-01	.4210-01	57.28	1.761	.4428	583.5	.4493-03	.5046-03
81	.87200	499.35	48.000	.2412-01	.2939-01	.3300-01	57.36	1.383	.4418	582.3	.3523-03	.3956-03
81	.87200	508.42	49.000	.2866-01	.3492-01	.3920-01	57.46	1.647	.4412	581.4	.4797-03	.5384-03
81	.87200	516.86	50.000	.3286-01	.4002-01	.4491-01	57.53	1.890	.4403	580.2	.3273-03	.3673-03
81	.87200	524.20	51.000	.2243-01	.2730-01	.3064-01	57.62	1.292	.4394	579.0	.3274-03	.3672-03
81	.87200	524.50	52.000	.2244-01	.2731-01	.3063-01	57.72	1.295	.4358	574.3	.1847-03	.2070-03
81	.87200	518.62	53.000	.1267-01	.1540-01	.1726-01	58.10	.7362	.4448	586.2	.1070-02	.1202-02
81	.88100	467.72	58.000	.7319-01	.8927-01	.1003	57.14	4.182	.4434	584.3	.1312-03	.1473-03
81	.88100	501.33	61.000	.8978-02	.1094-01	.1229-01	57.29	.5144	.4434			

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG009)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
51	3.337	7.300	20.00	.0000	693.8	1397.	342.5	.1254	122.4	.8596-04	3959.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TM=540										
51	.0000	.2171										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
51	.83500	437.62	1.0000	.4572-01	.5458-01	.6043-01	45.81	2.094	.3837	547.7	.1082-02	.1198-02
51	.83500	451.57	2.0000	.1766	.2109	.2335	45.73	8.077	.3846	549.0	.4179-02	.4628-02
51	.83500	463.35	3.0000	.1981	.2366	.2620	45.69	9.050	.3852	549.9	.4688-02	.5192-02
51	.83500	474.41	4.0000	.1004	.1199	.1327	45.69	4.586	.3852	549.8	.2375-02	.2631-02
51	.83500	485.17	5.0000	.3722-01	.4445-01	.4923-01	45.70	1.701	.3851	549.7	.8809-03	.9756-03
51	.83500	497.18	7.0000	.9900-02	.1182-01	.1309-01	45.78	.4533	.3840	548.1	.2342-03	.2594-03
51	.83500	495.98	8.0000	.7286-02	.8696-02	.9627-02	45.86	.3341	.3831	548.8	.1723-03	.1908-03
51	.84300	434.29	9.0000	.5684-01	.6785-01	.7512-01	45.80	2.603	.3838	547.8	.1345-02	.1489-02
51	.84300	446.10	10.000	.1863	.2225	.2464	45.72	8.519	.3848	549.3	.4409-02	.4883-02
51	.84300	459.73	11.000	.1749	.2090	.2315	45.64	7.985	.3858	550.7	.4141-02	.4587-02
51	.84300	472.01	12.000	.1744	.2083	.2308	45.63	7.958	.3860	551.0	.4128-02	.4573-02
51	.84300	482.44	13.000	.1770	.2114	.2342	45.65	8.082	.3857	550.6	.4190-02	.4641-02
51	.84300	492.89	14.000	.1335	.1594	.1766	45.67	6.096	.3855	550.3	.3159-02	.3500-02
51	.84300	501.43	15.000	.4664-01	.5569-01	.6168-01	45.72	2.132	.3849	549.4	.1104-02	.1222-02
51	.84300	508.10	16.000	.2048-01	.2446-01	.2708-01	45.74	.9368	.3846	549.0	.4847-03	.5367-03
51	.84300	510.38	17.000	.1345-01	.1605-01	.1777-01	45.82	.6161	.3836	547.5	.3181-03	.3522-03
51	.84300	504.13	18.000	.8058-02	.9616-02	.1065-01	45.87	.3696	.3829	546.6	.1906-03	.2110-03
51	.85400	437.47	19.000	.7070-01	.8444-01	.9352-01	45.69	3.230	.3853	549.9	.1673-02	.1853-02
51	.85400	449.68	20.000	.1273	.1521	.1686	45.59	5.806	.3865	551.7	.3015-02	.3340-02
51	.85400	462.41	21.000	.1078	.1288	.1426	45.54	4.910	.3872	552.7	.2553-02	.2829-02
51	.85400	475.11	22.000	.9969-01	.1191	.1320	45.52	4.538	.3874	553.0	.2361-02	.2616-02
51	.85400	485.84	23.000	.7788-01	.9306-01	.1031	45.54	3.547	.3871	552.6	.1844-02	.2043-02

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(RAG009)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
51	.85400	495.69	24.000	.1041	.1244	.1378	45.57	4.743	.3867	552.0	.2464-02	.2730-02
51	.85400	504.61	25.000	.9924-01	.1186	.1314	45.60	4.525	.3864	551.6	.2349-02	.2603-02
51	.85400	512.79	26.000	.3231-01	.3589-01	.4275-01	45.64	1.474	.3859	550.8	.7647-03	.8471-03
51	.85400	517.49	27.000	.1330-01	.1588-01	.1759-01	45.68	.6076	.3853	550.0	.3148-03	.3487-03
51	.85400	514.51	28.000	.1281-01	.1529-01	.1694-01	45.74	.5859	.3845	548.9	.3031-03	.3356-03
51	.85400	506.42	29.000	.8008-02	.9559-02	.1058-01	45.80	.3668	.3838	547.9	.1895-03	.2098-03
51	.86200	427.05	30.000	.2165-01	.2584-01	.2862-01	45.75	.9904	.3844	548.7	.5122-03	.5672-03
51	.86200	438.95	31.000	.4937-01	.5897-01	.6532-01	45.63	2.253	.3860	550.9	.1169-02	.1294-02
51	.86200	451.59	32.000	.1044	.1248	.1382	45.54	4.755	.3871	552.6	.2472-02	.2739-02
51	.86200	478.95	34.000	.6158-01	.7360-01	.8155-01	45.51	2.803	.3875	553.1	.1458-02	.1616-02
51	.86200	488.55	35.000	.4712-01	.5631-01	.6239-01	45.54	2.146	.3871	552.6	.1116-02	.1236-02
51	.86200	498.45	36.000	.4523-01	.5404-01	.5988-01	45.55	2.060	.3871	552.5	.1071-02	.1186-02
51	.86200	507.16	37.000	.6503-01	.7769-01	.8607-01	45.60	2.965	.3865	551.6	.1539-02	.1706-02
51	.86200	515.29	38.000	.4752-01	.5676-01	.6288-01	45.64	2.169	.3858	550.7	.1125-02	.1246-02
51	.86200	521.19	39.000	.1631-01	.1948-01	.2158-01	45.68	.7450	.3854	550.1	.3860-03	.4276-03
51	.86200	520.43	40.000	.1413-01	.1688-01	.1869-01	45.72	.6462	.3848	549.3	.3344-03	.3704-03
51	.86200	512.69	41.000	.1086-01	.1297-01	.1436-01	45.78	.4972	.3841	548.2	.2570-03	.2846-03
51	.87200	428.93	42.000	.1680-01	.2006-01	.2222-01	45.71	.7679	.3850	549.6	.3976-03	.4403-03
51	.87200	441.15	43.000	.4849-01	.5793-01	.6417-01	45.62	2.212	.3861	551.1	.1148-02	.1272-02
51	.87200	452.74	44.000	.1023	.1222	.1354	45.56	4.658	.3870	552.3	.2421-02	.2682-02
51	.87200	466.33	45.000	.7387-01	.8828-01	.9782-01	45.51	3.362	.3875	553.2	.1749-02	.1938-02
51	.87200	479.54	46.000	.5429-01	.6489-01	.7190-01	45.51	2.471	.3875	553.1	.1286-02	.1425-02
51	.87200	489.71	47.000	.3399-01	.4062-01	.4501-01	45.53	1.548	.3875	552.8	.8049-03	.8918-03
51	.87200	499.35	48.000	.2398-01	.2865-01	.3174-01	45.57	1.093	.3868	552.1	.5677-03	.6290-03
51	.87200	508.42	49.000	.2562-01	.3061-01	.3391-01	45.60	1.169	.3863	551.5	.6066-03	.6720-03
51	.87200	516.86	50.000	.4114-01	.4915-01	.5444-01	45.64	1.878	.3859	550.8	.9739-03	.1079-02
51	.87200	524.20	51.000	.1907-01	.2278-01	.2523-01	45.68	.8711	.3853	550.0	.4513-03	.4999-03
51	.87200	524.50	52.000	.1126-01	.1345-01	.1490-01	45.72	.5150	.3849	549.4	.2666-03	.2952-03
51	.87200	518.62	53.000	.1257-01	.1501-01	.1662-01	45.80	.5759	.3839	547.9	.2975-03	.3294-03
51	.88100	467.72	58.000	.6703-01	.8012-01	.8878-01	45.50	3.050	.3877	553.4	.1587-02	.1759-02
51	.88100	501.33	61.000	.9787-02	.1169-01	.1294-01	45.73	.4476	.3847	549.1	.2316-03	.2565-03

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OMS POD (50-0)

OH110, MODEL 50-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
52	3.394	7.300	25.00	.0000	692.9	1382.	338.6	.1254	121.0	.8693-04	3936.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
52	.0000	.2168

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
52	.83500	437.62	1.0000	.2081-01	.2495-01	.2772-01	44.11	.9179	.3984	562.2	.4909-03	.5453-03
52	.83500	451.57	2.0000	.4483-01	.5379-01	.5976-01	44.03	1.974	.3996	563.8	.1058-02	.1176-02
52	.83500	463.35	3.0000	.2484	.2982	.3313	43.96	10.92	.4004	565.0	.5865-02	.6517-02
52	.83500	474.41	4.0000	.1743	.2092	.2325	43.96	7.663	.4004	565.0	.4115-02	.4573-02
52	.83500	485.17	5.0000	.5944-01	.6653-01	.7394-01	43.96	2.437	.4005	565.1	.1309-02	.1454-02
52	.83500	497.18	7.0000	.1941-01	.2328-01	.2587-01	44.05	.8548	.3993	563.5	.4580-03	.5088-03
52	.83500	495.98	8.0000	.1595-01	.1913-01	.2124-01	44.12	.7036	.3983	562.1	.3763-03	.4179-03
52	.84300	434.29	9.0000	.1759-01	.2109-01	.2343-01	44.12	.7759	.3984	562.2	.4150-03	.4609-03
52	.84300	446.10	10.000	.5505-01	.6605-01	.7338-01	44.01	2.423	.3997	564.0	.1299-02	.1444-02
52	.84300	459.73	11.000	.1303	.1564	.1739	43.94	5.727	.4008	565.5	.3077-02	.3420-02
52	.84300	472.01	12.000	.2227	.2673	.2971	43.91	9.777	.4011	566.0	.5258-02	.5843-02
52	.84300	482.44	13.000	.1369	.1643	.1826	43.92	6.013	.4009	565.7	.3232-02	.3552-02
52	.84300	492.89	14.000	.1134	.1361	.1513	43.94	4.983	.4008	565.5	.2677-02	.2975-02
52	.84300	501.43	15.000	.4539-01	.5447-01	.6052-01	43.98	1.996	.4002	564.7	.1071-02	.1191-02
52	.84300	508.10	16.000	.3112-01	.3734-01	.4149-01	44.00	1.369	.3999	564.3	.7346-03	.8162-03
52	.84300	510.38	17.000	.2498-01	.2996-01	.3328-01	44.10	1.101	.3986	562.5	.5893-03	.6546-03
52	.84300	504.13	18.000	.1462-01	.1753-01	.1947-01	44.12	.6449	.3984	562.1	.3449-03	.3831-03
52	.85400	437.47	19.000	.1868-01	.2239-01	.2486-01	44.29	.8274	.3962	559.0	.4405-03	.4891-03
52	.85400	449.66	20.000	.6346-01	.7609-01	.8450-01	44.19	2.804	.3975	560.9	.1497-02	.1662-02
52	.85400	462.41	21.000	.1365	.1637	.1818	44.15	6.027	.3980	561.6	.3221-02	.3577-02
52	.85400	475.11	22.000	.1598	.1916	.2128	44.13	7.052	.3982	561.8	.3770-02	.4187-02
52	.85400	485.84	23.000	.7724-01	.9262-01	.1029	44.17	3.412	.3977	561.2	.1822-02	.2024-02

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
52	.85400	495.69	24.000	.7052-01	.8458-01	.9394-01	44.13	3.112	.3982	561.8	.1654-02	.1848-02
52	.85400	504.61	25.000	.5741-01	.6884-01	.7645-01	44.16	2.535	.3978	561.3	.1354-02	.1504-02
52	.85400	512.79	26.000	.2942-01	.3528-01	.3917-01	44.20	1.301	.3973	560.6	.6940-03	.7707-03
52	.85400	517.49	27.000	.2153-01	.2581-01	.2866-01	44.24	.9525	.3968	559.9	.5078-03	.5638-03
52	.85400	514.51	28.000	.1901-01	.2278-01	.2529-01	44.29	.8419	.3961	558.9	.4482-03	.4976-03
52	.85400	506.42	29.000	.1306-01	.1565-01	.1737-01	44.35	.5793	.3953	557.8	.3080-03	.3418-03
52	.86200	427.05	30.000	.6246-02	.7482-02	.8304-02	44.39	.2772	.3949	557.1	.1472-03	.1634-03
52	.86200	438.95	31.000	.1536-01	.1841-01	.2044-01	44.24	.6793	.3968	559.9	.3622-03	.4021-03
52	.86200	451.59	32.000	.9259-01	.1110	.1233	44.14	4.087	.3981	561.7	.2184-02	.2426-02
52	.86200	478.95	34.000	.7914-01	.9491-01	.1054	44.13	3.493	.3982	561.8	.1867-02	.2074-02
52	.86200	488.55	35.000	.4886-01	.5860-01	.6508-01	44.14	2.157	.3981	561.7	.1153-02	.1280-02
52	.86200	498.45	36.000	.3679-01	.4412-01	.4900-01	44.14	1.624	.3982	561.8	.8679-03	.9640-03
52	.86200	507.16	37.000	.4135-01	.4958-01	.5505-01	44.18	1.827	.3975	560.9	.9754-03	.1083-02
52	.86200	515.29	38.000	.2763-01	.3312-01	.3678-01	44.23	1.222	.3969	560.0	.6517-03	.7236-03
52	.86200	521.19	39.000	.1909-01	.2288-01	.2511-01	44.26	.8451	.3964	559.4	.4502-03	.4999-03
52	.86200	520.43	40.000	.1891-01	.2266-01	.2516-01	44.29	.8375	.3961	558.9	.4459-03	.4950-03
52	.86200	512.69	41.000	.1493-01	.1789-01	.1986-01	44.35	.6623	.3953	557.8	.3521-03	.3908-03
52	.87200	428.93	42.000	.4803-02	.5755-02	.6388-02	44.35	.2130	.3967	557.7	.1132-03	.1257-03
52	.87200	441.15	43.000	.1713-01	.2053-01	.2280-01	44.25	.7580	.3977	559.2	.4040-03	.4486-03
52	.87200	452.74	44.000	.8035-01	.9635-01	.1070	44.17	3.549	.3977	561.2	.1896-02	.2105-02
52	.87200	466.33	45.000	.4507-01	.5401-01	.5995-01	44.33	1.998	.3956	558.2	.1063-02	.1180-02
52	.87200	479.54	46.000	.5910-01	.7087-01	.7872-01	44.13	2.608	.3982	561.9	.1394-02	.1549-02
52	.87200	489.71	47.000	.3792-01	.4547-01	.5050-01	44.14	1.674	.3980	561.6	.8945-03	.9935-03
52	.87200	499.35	48.000	.2415-01	.2896-01	.3216-01	44.18	1.067	.3976	561.0	.5698-03	.6328-03
52	.87200	508.42	49.000	.2027-01	.2430-01	.2698-01	44.22	.8963	.3970	560.2	.4781-03	.5308-03
52	.87200	516.86	50.000	.2252-01	.2699-01	.2997-01	44.25	.9964	.3967	559.7	.5311-03	.5896-03
52	.87200	524.20	51.000	.1528-01	.1832-01	.2033-01	44.30	.6770	.3960	558.8	.3504-03	.4001-03
52	.87200	524.50	52.000	.1478-01	.1772-01	.1966-01	44.32	.6553	.3957	558.3	.3486-03	.3869-03
52	.87200	518.62	53.000	.1240-01	.1486-01	.1649-01	44.42	.5510	.3944	556.5	.2923-03	.3244-03
52	.88100	467.72	58.000	.9001-01	.1080	.1199	44.10	3.970	.3986	562.4	.2124-02	.2359-02
52	.88100	501.33	61.000	.9551-02	.1146-01	.1273-01	44.09	.4211	.3988	562.7	.2254-03	.2503-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAG009)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
53	3.675	7.300	27.50	.0000	691.4	1315.	321.5	.1256	114.9	.9171-04	3836.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
53	.0000	.2158

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
53	.83500	437.62	1.0000	.8859-02	.1064-01	.1184-01	41.37	.3665	.4038	541.0	.2030-03	.2257-03
53	.83500	451.57	2.0000	.1436-01	.1726-01	.1921-01	41.21	.5916	.4060	544.0	.3291-03	.3662-03
53	.83500	463.35	3.0000	.4560-01	.5481-01	.6096-01	41.32	1.884	.4045	542.0	.1045-02	.1162-02
53	.83500	474.41	4.0000	.1056	.1269	.1411	41.32	4.363	.4045	541.9	.2420-02	.2691-02
53	.83500	485.17	5.0000	.1240	.1490	.1657	41.33	5.124	.4044	541.8	.2841-02	.3160-02
53	.83500	497.18	7.0000	.2024-01	.2432-01	.2705-01	41.37	.8373	.4038	541.0	.4638-03	.5157-03
53	.83500	495.98	8.0000	.2247-01	.2699-01	.3001-01	41.40	.9302	.4033	540.3	.5147-03	.5723-03
53	.84300	434.29	9.0000	.4580-02	.5503-02	.6119-02	41.36	1.894	.4039	541.1	.1049-03	.1167-03
53	.84300	446.10	10.000	.1995-01	.2397-01	.2666-01	41.32	.8243	.4044	541.8	.4571-03	.5084-03
53	.84300	459.73	11.000	.3613-01	.4343-01	.4831-01	41.29	1.492	.4049	542.7	.8281-03	.9212-03
53	.84300	472.01	12.000	.8257-01	.9925-01	1.104	41.28	3.408	.4050	542.7	.1893-02	.2105-02
53	.84300	482.44	13.000	.9899-01	.1190	.1323	41.30	4.088	.4046	542.3	.2269-02	.2509-02
53	.84300	492.89	14.000	.9841-01	.1183	.1316	41.31	4.065	.4046	542.1	.2255-02	.2509-02
53	.84300	501.43	15.000	.9746-01	.1171	.1303	41.34	4.029	.4042	541.6	.2233-02	.2484-02
53	.84300	508.10	16.000	.3746-01	.4502-01	.5007-01	41.35	1.549	.4041	541.4	.8585-03	.9547-03
53	.84300	510.38	17.000	.2556-01	.3071-01	.3415-01	41.41	1.059	.4032	540.2	.5855-03	.6512-03
53	.84300	504.13	18.000	.2768-01	.3326-01	.3698-01	41.42	1.147	.4031	540.1	.6342-03	.7052-03
53	.85400	437.47	19.000	.7807-02	.9383-02	1.044-01	41.32	.3226	.4044	541.8	.1789-03	.1990-03
53	.85400	449.66	20.000	.1987-01	.2388-01	.2657-01	41.27	.8199	.4051	542.8	.4554-03	.5066-03
53	.85400	462.41	21.000	.4757-01	.5719-01	.6383-01	41.24	1.962	.4056	543.4	.1091-02	.1213-02
53	.85400	475.11	22.000	.8472-01	.1019	.1133	41.24	3.494	.4056	543.4	.1942-02	.2161-02
53	.85400	485.84	23.000	.9547-01	.1148	.1277	41.26	3.939	.4053	543.0	.2188-02	.2434-02

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OH110, MODEL 60-0, OMS POD

(RAG009)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
53	.85400	495.69	24.000	.7315-01	.8793-01	.9781-01	41.28	3.020	.4050	542.6	1677-02	1865-02
53	.85400	504.61	25.000	.6594-01	.7925-01	.8815-01	41.30	2.723	.4048	542.3	1511-02	1681-02
53	.85400	512.79	26.000	.4694-01	.5641-01	.6274-01	41.32	1.940	.4045	541.9	1076-02	1196-02
53	.85400	517.49	27.000	.1862-01	.2237-01	.2488-01	41.34	.7697	.4041	541.5	4266-03	4745-03
53	.85400	514.51	28.000	.2516-01	.3022-01	.3361-01	41.38	1.041	.4037	540.9	5764-03	6409-03
53	.85400	506.42	29.000	.2494-01	.2996-01	.3331-01	41.40	1.032	.4033	540.4	5713-03	6353-03
53	.86200	427.05	30.000	.2586-02	.3107-02	.3455-02	41.36	1.069	.4040	541.3	5925-04	6589-04
53	.86200	438.95	31.000	.6928-02	.8327-02	.9262-02	41.29	.2861	.4049	542.4	1588-03	1766-03
53	.86200	451.59	32.000	.1395-01	.1677-01	.1866-01	41.25	.5755	.4054	543.2	3198-03	3558-03
53	.86200	478.95	34.000	.6145-01	.7388-01	.8219-01	41.25	2.535	.4054	543.2	1409-02	1567-02
53	.86200	488.55	35.000	.6463-01	.7769-01	.8642-01	41.26	2.666	.4053	543.0	1481-02	1648-02
53	.86200	498.45	36.000	.4825-01	.5801-01	.6453-01	41.26	1.991	.4052	543.0	1106-02	1230-02
53	.86200	507.16	37.000	.3841-01	.4617-01	.5136-01	41.30	1.586	.4048	542.4	8804-03	9793-03
53	.86200	515.29	38.000	.3341-01	.4015-01	.4466-01	41.34	1.381	.4042	541.6	7657-03	8516-03
53	.86200	521.19	39.000	.1972-01	.2370-01	.2635-01	41.34	.8153	.4041	541.5	4519-03	5026-03
53	.86200	520.43	40.000	.1872-01	.2249-01	.2501-01	41.37	.7744	.4038	541.0	4289-03	4770-03
53	.86200	512.69	41.000	.2285-01	.2745-01	.3053-01	41.40	.9462	.4033	540.4	5236-03	5822-03
53	.87200	428.93	42.000	.2866-02	.3444-02	.3830-02	41.33	1.184	.4044	541.8	6567-04	7304-04
53	.87200	441.15	43.000	.7255-02	.8720-02	.9699-02	41.29	.2996	.4049	542.4	1663-03	1850-03
53	.87200	452.74	44.000	.1338-01	.1608-01	.1789-01	41.26	.5519	.4054	543.1	3067-03	3412-03
53	.87200	466.33	45.000	.2325-01	.2794-01	.3107-01	41.38	.9622	.4036	540.8	5328-03	5924-03
53	.87200	479.54	46.000	.5428-01	.6526-01	.7260-01	41.25	2.239	.4055	543.3	1244-02	1384-02
53	.87200	489.71	47.000	.3929-01	.4724-01	.5255-01	41.26	1.621	.4053	543.0	9007-03	1002-02
53	.87200	499.35	48.000	.3286-01	.3950-01	.4393-01	41.29	1.357	.4049	542.4	7531-03	8377-03
53	.87200	508.42	49.000	.2230-01	.2680-01	.2981-01	41.31	.9213	.4045	542.0	5111-03	5684-03
53	.87200	516.86	50.000	.2131-01	.2561-01	.2848-01	41.33	.8807	.4044	541.8	4884-03	5432-03
53	.87200	524.20	51.000	.1560-01	.1875-01	.2085-01	41.35	.6452	.4040	541.3	3575-03	3976-03
53	.87200	524.50	52.000	.1318-01	.1583-01	.1761-01	41.36	.5451	.4038	541.1	3019-03	3358-03
53	.87200	518.62	53.000	.1264-01	.1519-01	.1689-01	41.42	.5237	.4031	540.0	2896-03	3220-03
53	.88100	467.72	58.000	.7481-01	.8995-01	.1001	41.23	3.085	.4057	543.5	1715-02	1908-02
53	.88100	501.33	61.000	.1029-01	.1236-01	.1375-01	41.40	.4261	.4033	540.4	2358-03	2622-03

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(RAG009)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
56	3.709	7.300	30.00	.0000	690.1	1307.	319.2	.1254	114.1	.9223-04	3822.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
56	.0000	.2155

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
56	.83500	437.62	1.0000	.2698-02	.3268-02	.3653-02	39.45	.1064	.4260	566.8	.6202-04	.6934-04
56	.83500	451.57	2.0000	.6815-04	.8260-04	.9240-04	39.28	.2677-02	.4283	569.8	.1568-05	.1754-05
56	.83500	463.35	3.0000	.1254-01	.1519-01	.1699-01	39.36	.4935	.4272	568.4	.2883-03	.3224-03
56	.83500	474.41	4.0000	.2665-01	.3228-01	.3610-01	39.37	1.049	.4270	568.1	.6127-03	.6852-03
56	.83500	485.17	5.0000	.3132-01	.3794-01	.4242-01	39.38	1.233	.4269	568.0	.7202-03	.8053-03
56	.83500	497.18	7.0000	.4139-01	.5013-01	.5604-01	39.44	1.632	.4262	567.0	.9515-03	.1064-02
56	.83500	495.98	8.0000	.3753-01	.4544-01	.5079-01	39.50	1.482	.4253	566.8	.8625-03	.9541-03
56	.84300	434.29	9.0000	.1336-02	.1617-02	.1808-02	39.45	.5268-01	.4260	566.8	.3070-04	.3432-04
56	.84300	446.10	10.000	.3600-02	.4361-02	.4877-02	39.38	.1418	.4269	568.0	.8278-04	.9257-04
56	.84300	459.73	11.000	.4861-02	.5889-02	.6586-02	39.35	.1913	.4274	568.5	.1118-03	.1250-03
56	.84300	472.01	12.000	.1230-01	.1490-01	.1666-01	39.34	.4838	.4275	568.7	.2828-03	.3162-03
56	.84300	482.44	13.000	.1882-01	.1554-01	.1737-01	39.36	.5047	.4273	568.4	.2949-03	.3297-03
56	.84300	492.89	14.000	.1527-01	.1849-01	.2068-01	39.37	.6010	.4271	568.3	.3510-03	.3925-03
56	.84300	501.43	15.000	.2155-01	.2610-01	.2919-01	39.40	.8490	.4267	567.7	.4955-03	.5540-03
56	.84300	508.10	16.000	.4911-01	.5948-01	.6650-01	39.42	1.336	.4264	567.3	.1129-02	.1262-02
56	.84300	510.38	17.000	.4477-01	.5421-01	.6059-01	39.48	1.768	.4255	566.1	.1029-02	.1150-02
56	.84300	504.13	18.000	.3583-01	.4338-01	.4848-01	39.50	1.415	.4252	565.7	.8234-03	.9203-03
56	.85400	437.47	19.000	.2152-02	.2607-02	.2914-02	39.45	.8491-01	.4260	565.7	.4948-04	.5531-04
56	.85400	449.66	20.000	.7194-02	.8714-02	.9744-02	39.39	.2834	.4268	567.8	.1654-03	.1850-03
56	.85400	462.41	21.000	.6497-02	.7871-02	.8802-02	39.36	.2557	.4272	568.4	.1494-03	.1671-03
56	.85400	475.11	22.000	.1154-01	.1398-01	.1564-01	39.36	.4543	.4273	568.4	.2654-03	.2968-03
56	.85400	485.84	23.000	.1472-01	.1784-01	.1994-01	39.37	.5797	.4270	568.1	.3386-03	.3786-03

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OH110, MODEL 60-0, OMS POD

(RAG009)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
56	.85400	495.69	24.000	.1833-01	.2220-01	.2483-01	39.39	.7221	.4267	567.7	.4214-03	.4712-03
56	.85400	504.61	25.000	.2399-01	.2906-01	.3249-01	39.41	.9456	.4265	567.4	.5516-03	.6167-03
56	.85400	512.79	26.000	.2604-01	.3154-01	.3526-01	39.44	1.027	.4261	566.9	.5987-03	.6633-03
56	.85400	517.49	27.000	.2989-01	.3619-01	.4046-01	39.47	1.180	.4257	566.4	.6871-03	.7680-03
56	.85400	514.51	28.000	.2789-01	.3377-01	.3774-01	39.50	1.102	.4252	565.7	.6410-03	.7165-03
56	.85400	506.42	29.000	.2736-01	.3312-01	.3701-01	39.54	1.082	.4246	565.0	.6287-03	.7026-03
56	.86200	427.05	30.000	.8822-03	.1068-02	.1194-02	39.49	.3484-01	.4254	565.9	.2028-04	.2266-04
56	.86200	438.95	31.000	.2022-02	.2449-02	.2738-02	39.42	.7971-01	.4270	567.3	.4649-04	.5198-04
56	.86200	451.59	32.000	.7165-02	.8680-02	.9706-02	39.37	.2821	.4271	568.2	.1648-03	.1842-03
56	.86200	478.95	34.000	.2040-01	.2472-01	.2764-01	39.37	.8034	.4270	568.1	.4692-03	.5247-03
56	.86200	488.55	35.000	.1540-01	.1866-01	.2086-01	39.38	.6065	.4270	568.1	.3542-03	.3960-03
56	.86200	498.45	36.000	.1567-01	.1898-01	.2122-01	39.39	.6172	.4268	567.8	.3603-03	.4029-03
56	.86200	507.16	37.000	.2096-01	.2539-01	.2838-01	39.42	.8262	.4264	567.3	.4819-03	.5388-03
56	.86200	515.29	38.000	.1981-01	.2399-01	.2682-01	39.45	.7817	.4259	566.6	.4554-03	.5091-03
56	.86200	521.19	39.000	.2102-01	.2545-01	.2845-01	39.47	.8295	.4257	566.4	.4831-03	.5400-03
56	.86200	520.43	40.000	.1996-01	.2416-01	.2701-01	39.49	.7881	.4254	566.0	.4586-03	.5126-03
56	.86200	512.69	41.000	.2338-01	.2830-01	.3163-01	39.54	.9244	.4247	565.1	.5373-03	.6004-03
56	.87200	428.93	42.000	.1021-02	.1237-02	.1382-02	39.47	.4031-01	.4257	566.4	.2347-04	.2624-04
56	.87200	441.15	43.000	.2623-02	.3176-02	.3551-02	39.42	.1034	.4264	567.3	.6029-04	.6741-04
56	.87200	452.74	44.000	.7765-02	.9407-02	.1052-01	39.38	.3057	.4270	568.1	.1328-03	.1484-03
56	.87200	466.33	45.000	.5778-02	.6994-02	.7816-02	39.54	.2285	.4272	568.4	.5683-03	.6356-03
56	.87200	479.54	46.000	.2472-01	.2994-01	.3348-01	39.36	.9284	.4270	568.1	.3459-03	.3868-03
56	.87200	489.71	47.000	.1504-01	.1823-01	.2038-01	39.37	.5824	.4267	567.7	.2378-03	.2658-03
56	.87200	499.35	48.000	.1034-01	.1253-01	.1401-01	39.40	.4074	.4263	567.1	.2982-03	.3334-03
56	.87200	508.42	49.000	.1297-01	.1571-01	.1766-01	39.43	.5115	.4260	566.7	.3545-03	.3963-03
56	.87200	516.86	50.000	.1542-01	.1867-01	.2088-01	39.45	.6083	.4257	566.3	.3131-03	.3500-03
56	.87200	524.20	51.000	.1362-01	.1650-01	.1844-01	39.47	.5377	.4254	565.9	.2983-03	.3335-03
56	.87200	524.50	52.000	.1298-01	.1572-01	.1757-01	39.49	.5126	.4245	564.7	.2688-03	.3004-03
56	.87200	518.62	53.000	.1170-01	.1416-01	.1582-01	39.56	.4628	.4274	568.6	.6712-03	.7506-03
56	.88100	467.72	58.000	.2919-01	.3536-01	.3955-01	39.35	1.148	.4253	565.8	.1065-03	.1191-03
56	.88100	501.33	61.000	.4635-02	.5611-02	.6272-02	39.50	.1831				

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

(RAG010)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
76	3.798	7.300	25.00	.0000	689.7	1288.	314.3	.1255	112.4	.9370-04	3793.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2152
76	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
76	.83500	437.62	1.0000	.2258-01	.2729-01	.3046-01	39.19	.8847	.4205	550.9	.5134-03	.5731-03
76	.83500	451.57	2.0000	.5925-01	.7163-01	.7998-01	39.13	2.318	.4214	552.0	.1348-02	.1505-02
76	.83500	463.35	3.0000	.2703	.3268	.3649	39.11	10.57	.4216	552.3	.6147-02	.6865-02
76	.83500	474.41	4.0000	.1544	.1867	.2085	39.11	6.040	.4216	552.3	.3512-02	.3922-02
76	.83500	485.17	5.0000	.5298-01	.6405-01	.7152-01	39.12	2.072	.4215	552.2	.1205-02	.1346-02
76	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
76	.83500	495.98	8.0000	.1675-01	.2025-01	.2260-01	39.22	.6572	.4200	550.2	.3809-03	.4252-03
76	.83500	434.29	9.0000	.2078-01	.2511-01	.2804-01	39.19	.8143	.4205	550.9	.4725-03	.5275-03
76	.84300	446.10	10.000	.6699-01	.8099-01	.9043-01	39.13	2.621	.4214	552.0	.1524-02	.1701-02
76	.84300	459.73	11.000	.1537	.1859	.2076	39.07	6.005	.4222	553.1	.3497-02	.3905-02
76	.84300	472.01	12.000	.2174	.2629	.2937	39.07	8.495	.4222	553.1	.4946-02	.5525-02
76	.84300	482.44	13.000	.1348	.1630	.1821	39.09	5.270	.4220	552.8	.3067-02	.3426-02
76	.84300	492.89	14.000	.1032	.1248	.1394	39.10	4.037	.4218	552.5	.2349-02	.2623-02
76	.84300	501.43	15.000	.4562-01	.5515-01	.6158-01	39.13	1.785	.4213	551.9	.1037-02	.1158-02
76	.84300	508.10	16.000	.3194-01	.3861-01	.4311-01	39.16	1.251	.4210	551.5	.7264-03	.8111-03
76	.84300	510.38	17.000	.2583-01	.3121-01	.3484-01	39.23	1.013	.4199	550.1	.5873-03	.6556-03
76	.84300	504.13	18.000	.1543-01	.1864-01	.2081-01	39.24	.6054	.4198	549.9	.3507-03	.3915-03
76	.85400	437.47	19.000	.2272-01	.2741-01	.3056-01	39.53	.8980	.4156	544.5	.5158-03	.5752-03
76	.85400	449.66	20.000	.8209-01	.9907-01	.1105	39.47	3.240	.4165	545.7	.1864-02	.2079-02
76	.85400	462.41	21.000	.1407	.1699	.1895	39.43	5.550	.4170	546.3	.3197-02	.3566-02
76	.85400	475.11	22.000	.1463	.1766	.1970	39.43	5.767	.4171	546.4	.3322-02	.3708-02
76	.85400	485.84	23.000	.7258-01	.8761-01	.9772-01	39.45	2.863	.4168	546.0	.1649-02	.1839-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD (RAG010)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
76	.85400	495.69	24.000	.7229-01	.8724-01	.9731-01	39.47	2.853	.4165	545.7	.1642-02	.1831-02
76	.85400	504.61	25.000	.5562-01	.6712-01	.7485-01	39.49	2.196	.4162	545.3	.1263-02	.1409-02
76	.85400	512.79	26.000	.3051-01	.3682-01	.4106-01	39.51	1.206	.4159	544.8	.6928-03	.7726-03
76	.85400	517.49	27.000	.2215-01	.2672-01	.2980-01	39.54	.8758	.4155	544.3	.5029-03	.5608-03
76	.85400	514.51	28.000	.1954-01	.2357-01	.2628-01	39.58	.7736	.4148	543.4	.4436-03	.4946-03
76	.85400	506.42	29.000	.1381-01	.1685-01	.1856-01	39.63	.5473	.4142	542.6	.3134-03	.3494-03
76	.86200	427.05	30.000	.7364-02	.8882-02	.9903-02	39.58	.2914	.4150	543.6	.1672-03	.1864-03
76	.86200	438.95	31.000	.2089-01	.2321-01	.2811-01	39.49	.8249	.4162	545.2	.4743-03	.5290-03
76	.86200	451.59	32.000	.1110	.1340	.1495	39.43	4.377	.4170	546.3	.2521-02	.2813-02
76	.86200	478.95	34.000	.7420-01	.8956-01	.9991-01	39.42	2.925	.4172	546.5	.1685-02	.1880-02
76	.86200	488.55	35.000	.4662-01	.5627-01	.6276-01	39.45	1.839	.4167	545.9	.1059-02	.1181-02
76	.86200	498.45	36.000	.3668-01	.4427-01	.4938-01	39.45	1.447	.4168	546.0	.8331-03	.9293-03
76	.86200	507.16	37.000	.4143-01	.4999-01	.5576-01	39.48	1.636	.4163	545.4	.9408-03	.1049-02
76	.86200	515.29	38.000	.2764-01	.3334-01	.3718-01	39.52	1.092	.4158	544.7	.6275-03	.6997-03
76	.86200	521.19	39.000	.1957-01	.2361-01	.2633-01	39.54	.7739	.4154	544.3	.4443-03	.4955-03
76	.86200	520.43	40.000	.1909-01	.2302-01	.2567-01	39.57	.7554	.4150	543.6	.4333-03	.4831-03
76	.86200	512.69	41.000	.1520-01	.1833-01	.2043-01	39.62	.6021	.4143	542.8	.3449-03	.3845-03
76	.87200	428.93	42.000	.5480-02	.6611-02	.7372-02	39.54	.2166	.4155	544.3	.1244-03	.1387-03
76	.87200	441.15	43.000	.2336-01	.2819-01	.3143-01	39.48	.9221	.4163	545.4	.5304-03	.5916-03
76	.87200	452.74	44.000	.1030	.1244	.1387	39.44	4.063	.4169	546.2	.2340-02	.2610-02
76	.87200	466.33	45.000	.2389-01	.2882-01	.3213-01	39.57	.9454	.4150	543.7	.5423-03	.6047-03
76	.87200	479.54	46.000	.5409-01	.6529-01	.7283-01	39.42	2.132	.4171	546.4	.1229-02	.1371-02
76	.87200	489.71	47.000	.3560-01	.4297-01	.4793-01	39.44	1.404	.4169	546.1	.8087-03	.9020-03
76	.87200	499.35	48.000	.2205-01	.2661-01	.2967-01	39.48	.8703	.4164	545.5	.5007-03	.5584-03
76	.87200	508.42	49.000	.1991-01	.2402-01	.2679-01	39.50	.7865	.4160	545.0	.4521-03	.5042-03
76	.87200	516.86	50.000	.2212-01	.2668-01	.2976-01	39.52	.8740	.4158	544.7	.5022-03	.5600-03
76	.87200	524.20	51.000	.1536-01	.1853-01	.2066-01	39.55	.6076	.4153	544.0	.3488-03	.3689-03
76	.87200	524.50	52.000	.1428-01	.1723-01	.1921-01	39.57	.5652	.4151	543.7	.3243-03	.3615-03
76	.87200	518.62	53.000	.1165-01	.1404-01	.1565-01	39.64	.4618	.4140	542.3	.2643-03	.2946-03
76	.88100	467.72	58.000	.8019-01	.9680-01	.1080	39.41	3.161	.4173	546.6	.1822-02	.2032-02
76	.88100	501.33	61.000	.9727-02	.1176-01	.1313-01	39.17	.3810	.4207	551.2	.2212-03	.2470-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

(RAG011)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
59	9.412	7.300	20.00	.0000	1719.	1292.	315.5	.3127	112.8	.2326-03	3800.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3399										
59	.0000											

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
59	.83500	437.62	1.0000	.5138-01	.6221-01	.6954-01	61.54	3.161	.4257	559.7	.7428-03	.8303-03
59	.83500	451.57	2.0000	.1896	.2296	.2568	61.40	11.64	.4269	561.3	.2742-02	.3066-02
59	.83500	463.35	3.0000	.2334	.2828	.3163	61.34	14.32	.4274	562.0	.3377-02	.3776-02
59	.83500	474.41	4.0000	.1228	.1488	.1664	61.36	7.534	.4273	561.8	.1776-02	.1986-02
59	.83500	485.17	5.0000	.4179-01	.5063-01	.5662-01	61.35	2.564	.4273	561.9	.6045-03	.6760-03
59	.83500	497.18	7.0000	.2102-01	.2546-01	.2847-01	61.46	1.292	.4263	560.5	.3040-03	.3399-03
59	.83500	495.98	8.0000	.2651-01	.3210-01	.3587-01	61.59	1.633	.4252	559.9	.3833-03	.4284-03
59	.84300	434.29	9.0000	.5306-01	.6425-01	.7183-01	61.52	3.264	.4258	559.9	.7672-03	.8577-03
59	.84300	446.10	10.000	.1806	.2188	.2447	61.36	11.08	.4272	561.8	.2612-02	.2921-02
59	.84300	459.73	11.000	.1852	.2245	.2511	61.26	11.35	.4282	563.0	.2680-02	.2998-02
59	.84300	472.01	12.000	.1650	.2000	.2237	61.24	10.10	.4284	563.3	.2388-02	.2671-02
59	.84300	482.44	13.000	.1421	.1722	.1926	61.28	8.711	.4279	562.7	.2056-02	.2300-02
59	.84300	492.89	14.000	.1242	.1505	.1683	61.32	7.616	.4276	562.3	.1797-02	.2010-02
59	.84300	501.43	15.000	.5845-01	.7082-01	.7919-01	61.37	3.587	.4272	561.7	.8455-03	.9455-03
59	.84300	508.10	16.000	.3600-01	.4361-01	.4877-01	61.39	2.210	.4270	561.4	.5207-03	.5823-03
59	.84300	510.38	17.000	.3217-01	.3896-01	.4356-01	61.50	1.979	.4260	560.2	.4652-03	.5201-03
59	.84300	504.13	18.000	.2253-01	.2727-01	.3048-01	61.61	1.388	.4250	558.8	.3257-03	.3640-03
59	.85400	437.47	19.000	.6691-01	.8091-01	.9035-01	61.97	4.147	.4217	554.5	.9663-03	.1079-02
59	.85400	449.66	20.000	.1264	.1530	.1709	61.82	7.818	.4231	556.3	.1827-02	.2041-02
59	.85400	462.41	21.000	.1156	.1399	.1563	61.78	7.144	.4234	556.7	.1671-02	.1865-02
59	.85400	475.11	22.000	.1001	.1211	.1353	61.81	6.186	.4232	556.5	.1446-02	.1615-02
59	.85400	485.84	23.000	.7077-01	.8558-01	.9558-01	61.91	4.381	.4223	555.2	.1022-02	.1142-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, OMS POD

(RAG011)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
59	.85400	495.69	24.000	.7595-01	.9188-01	.1026	61.82	4.695	.4231	556.3	.1097-02	.1266-02
59	.85400	504.61	25.000	.8105-01	.9803-01	.1095	61.87	5.015	.4227	555.7	.1171-02	.1308-02
59	.85400	512.79	26.000	.4056-01	.4905-01	.5478-01	61.91	2.511	.4223	555.3	.5858-03	.6513-03
59	.85400	517.49	27.000	.2803-01	.3389-01	.3785-01	61.97	1.737	.4217	554.5	.4048-03	.4520-03
59	.85400	514.51	28.000	.2624-01	.3172-01	.3542-01	62.08	1.629	.4208	553.2	.3789-03	.4230-03
59	.85400	506.42	29.000	.1944-01	.2349-01	.2621-01	62.20	1.209	.4196	551.8	.2805-03	.3131-03
59	.85200	427.05	30.000	.2072-01	.2504-01	.2795-01	62.10	1.287	.4205	552.9	.2990-03	.3339-03
59	.86200	438.95	31.000	.5086-01	.6150-01	.6869-01	61.90	3.148	.4224	555.4	.7345-03	.8204-03
59	.86200	451.59	32.000	.1023	.1238	.1383	61.77	6.322	.4235	556.9	.1479-02	.1652-02
59	.86200	478.95	34.000	.5997-01	.7255-01	.8105-01	61.79	3.705	.4234	556.7	.8664-03	.9679-03
59	.86200	488.55	35.000	.4274-01	.5169-01	.5774-01	61.85	2.643	.4228	556.0	.6174-03	.6896-03
59	.86200	498.45	36.000	.3921-01	.4742-01	.5297-01	61.87	2.426	.4227	555.8	.5663-03	.6326-03
59	.86200	507.16	37.000	.4449-01	.5380-01	.6009-01	61.92	2.755	.4222	555.1	.6425-03	.7176-03
59	.86200	515.29	38.000	.3970-01	.4799-01	.5359-01	62.00	2.461	.4215	554.2	.5732-03	.6401-03
59	.86200	521.19	39.000	.2410-01	.2913-01	.3252-01	62.04	1.495	.4211	553.6	.3479-03	.3885-03
59	.86200	520.43	40.000	.2545-01	.3076-01	.3434-01	62.10	1.580	.4206	553.0	.3673-03	.4101-03
59	.86200	512.69	41.000	.2131-01	.2575-01	.2874-01	62.23	1.326	.4194	551.5	.3075-03	.3433-03
59	.87200	428.93	42.000	.1901-01	.2298-01	.2566-01	62.05	1.180	.4210	553.5	.2745-03	.3064-03
59	.87200	441.15	43.000	.4705-01	.5689-01	.6354-01	61.94	2.914	.4220	554.9	.6795-03	.7589-03
59	.87200	452.74	44.000	.9301-01	.1125	.1257	61.84	5.752	.4229	556.1	.1344-02	.1501-02
59	.87200	466.33	45.000	.1991-01	.2405-01	.2684-01	62.29	1.240	.4189	550.7	.2872-03	.3206-03
59	.87200	479.54	46.000	.5268-01	.6372-01	.7118-01	61.84	3.258	.4229	556.1	.7610-03	.8501-03
59	.87200	489.71	47.000	.3130-01	.3785-01	.4228-01	61.89	1.937	.4225	555.5	.4521-03	.5049-03
59	.87200	499.35	48.000	.2158-01	.2609-01	.2914-01	61.95	1.337	.4220	554.8	.3116-03	.3480-03
59	.87200	508.42	49.000	.2053-01	.2482-01	.2772-01	62.02	1.273	.4213	554.0	.2965-03	.3310-03
59	.87200	516.86	50.000	.2709-01	.3274-01	.3656-01	62.04	1.680	.4211	553.7	.3911-03	.4366-03
59	.87200	524.20	51.000	.1885-01	.2278-01	.2543-01	62.12	1.171	.4204	552.7	.2720-03	.3037-03
59	.87200	524.50	52.000	.1913-01	.2312-01	.2580-01	62.18	1.190	.4198	552.0	.2761-03	.3082-03
59	.87200	518.62	53.000	.1506-01	.1819-01	.2029-01	62.36	.9392	.4182	549.9	.2172-03	.2424-03
59	.88100	467.72	58.000	.6667-01	.8066-01	.9012-01	61.76	4.118	.4236	557.0	.9633-03	.1076-02
59	.88100	501.33	61.000	.1013-01	.1226-01	.1370-01	61.61	.6238	.4250	558.8	.1464-03	.1636-03

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

(RAG011)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
58	9.117	7.300	25.00	.0000	1683.	1301.	317.6	.3060	113.6	.2261-03	3813.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
58	.0000	.3365										

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
58	.83500	437.62	1.0000	.3556-01	.4279-01	.4763-01	63.29	2.251	.4079	540.0	.5190-03	.5777-03
58	.83500	451.57	2.0000	.1386	.1669	.1858	63.15	8.754	.4091	541.6	.2024-02	.2253-02
58	.83500	463.35	3.0000	.2081	.2506	.2790	63.09	13.13	.4096	542.3	.3039-02	.3384-02
58	.83500	474.41	4.0000	.1048	.1262	.1405	63.10	6.613	.4096	542.3	.1530-02	.1704-02
58	.83500	485.17	5.0000	.3974-01	.4784-01	.5327-01	63.09	2.507	.4096	542.3	.5803-03	.6461-03
58	.83500	497.18	7.0000	.6492-01	.7813-01	.8698-01	63.22	4.104	.4085	540.8	.9477-03	.1055-02
58	.83500	495.98	8.0000	.5742-01	.6908-01	.7688-01	63.34	3.637	.4074	539.4	.8379-03	.9326-03
58	.84300	434.29	9.0000	.2908-01	.3499-01	.3895-01	63.28	1.840	.4080	540.1	.4244-03	.4724-03
58	.84300	446.10	10.000	.1026	.1235	.1376	63.11	6.477	.4095	542.1	.1499-02	.1669-02
58	.84300	459.73	11.000	.1730	.2083	.2321	63.00	10.90	.4105	543.4	.2527-02	.2814-02
58	.84300	472.01	12.000	.1534	.1848	.2058	62.97	9.661	.4108	543.8	.2241-02	.2496-02
58	.84300	482.44	13.000	.9296-01	.1119	.1247	63.03	5.859	.4103	543.1	.1358-02	.1512-02
58	.84300	492.89	14.000	.8186-01	.9856-01	.1098	63.05	5.161	.4100	542.8	.1195-02	.1331-02
58	.84300	501.43	15.000	.4769-01	.5742-01	.6393-01	63.12	3.010	.4094	542.0	.6964-03	.7754-03
58	.84300	508.10	16.000	.4049-01	.4874-01	.5427-01	63.14	2.557	.4092	541.7	.5912-03	.6583-03
58	.84300	510.38	17.000	.5753-01	.6923-01	.7706-01	63.26	3.639	.4082	540.4	.8397-03	.9348-03
58	.84300	504.13	18.000	.3507-01	.4219-01	.4695-01	63.37	2.223	.4071	539.0	.5118-03	.5696-03
58	.85400	437.47	19.000	.3449-01	.4152-01	.4624-01	63.06	2.175	.4099	542.7	.5036-03	.5608-03
58	.85400	449.66	20.000	.8833-01	.1064	.1185	62.88	5.554	.4116	544.8	.1291-02	.1438-02
58	.85400	462.41	21.000	.1498	.1806	.2012	62.79	9.409	.4123	545.9	.2190-02	.2440-02
58	.85400	475.11	22.000	.1123	.1353	.1508	62.79	7.052	.4124	545.9	.1641-02	.1829-02
58	.85400	485.84	23.000	.5617-01	.6768-01	.7540-01	62.86	3.531	.4118	545.1	.8208-03	.9144-03

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OH110, MODEL 60-0, OHS POD

(RAG011)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
58	.85400	495.69	24.000	.5117-01	.6164-01	.6867-01	62.89	3.218	.4115	544.7	.7475-03	.8328-03
58	.85400	504.61	25.000	.5724-01	.6895-01	.7680-01	62.93	3.602	.4111	544.2	.8362-03	.9314-03
58	.85400	512.79	26.000	.3866-01	.4078-01	.4542-01	62.99	2.133	.4106	543.5	.4946-03	.5508-03
58	.85400	517.49	27.000	.2549-01	.3070-01	.3419-01	63.06	1.608	.4100	542.7	.3723-03	.4146-03
58	.85400	514.51	28.000	.3197-01	.3849-01	.4285-01	63.17	2.020	.4090	541.4	.4668-03	.5197-03
58	.85400	506.42	29.000	.2521-01	.3034-01	.3377-01	63.28	1.595	.4080	540.1	.3680-03	.4096-03
58	.86200	427.05	30.000	.8983-02	.1081-01	.1204-01	63.18	.5675	.4089	541.3	.1312-03	.1460-03
58	.86200	438.95	31.000	.2460-01	.2963-01	.3300-01	62.97	1.549	.4107	543.7	.3593-03	.4002-03
58	.86200	451.59	32.000	.9872-01	.1190	.1325	62.83	6.202	.4121	545.5	.1443-02	.1607-02
58	.86200	478.95	34.000	.6441-01	.7761-01	.8647-01	62.83	4.047	.4120	545.4	.9412-03	.1049-02
58	.86200	488.55	35.000	.4107-01	.4949-01	.5513-01	62.87	2.582	.4117	545.0	.6001-03	.6686-03
58	.86200	498.45	36.000	.2945-01	.3548-01	.3953-01	62.88	1.852	.4116	544.9	.4303-03	.4794-03
58	.86200	507.16	37.000	.3207-01	.3863-01	.4303-01	62.96	2.019	.4109	544.0	.4685-03	.5219-03
58	.86200	515.29	38.000	.2952-01	.3555-01	.3959-01	63.03	1.861	.4102	543.1	.4312-03	.4802-03
58	.86200	521.19	39.000	.2211-01	.2662-01	.2964-01	63.08	1.395	.4097	542.4	.3229-03	.3595-03
58	.86200	520.43	40.000	.2220-01	.2673-01	.2976-01	63.15	1.402	.4091	541.6	.3242-03	.3609-03
58	.86200	512.69	41.000	.2365-01	.2846-01	.3168-01	63.27	1.496	.4081	540.2	.3452-03	.3843-03
58	.87200	428.93	42.000	.7942-02	.9562-02	.1065-01	63.08	.5010	.4098	542.5	.1160-03	.1291-03
58	.87200	441.15	43.000	.2115-01	.2547-01	.2837-01	62.97	1.332	.4108	543.8	.3089-03	.3441-03
58	.87200	452.74	44.000	.8218-01	.9901-01	.1103	62.86	5.166	.4118	545.1	.1201-02	.1338-02
58	.87200	466.33	45.000	.2911-01	.3503-01	.3899-01	63.24	1.841	.4084	540.6	.4249-03	.4730-03
58	.87200	479.54	46.000	.5591-01	.6737-01	.7506-01	62.83	3.513	.4120	545.4	.8170-03	.9102-03
58	.87200	489.71	47.000	.3373-01	.4063-01	.4527-01	62.87	2.120	.4116	544.9	.4928-03	.5490-03
58	.87200	499.35	48.000	.2042-01	.2459-01	.2739-01	62.95	1.285	.4109	544.0	.2983-03	.3322-03
58	.87200	508.42	49.000	.1566-01	.1886-01	.2100-01	63.01	.9867	.4104	543.3	.2287-03	.2547-03
58	.87200	516.86	50.000	.1982-01	.2387-01	.2658-01	63.05	1.250	.4101	542.9	.2895-03	.3224-03
58	.87200	524.20	51.000	.1652-01	.1989-01	.2215-01	63.12	1.043	.4094	542.0	.2413-03	.2687-03
58	.87200	524.50	52.000	.1699-01	.2045-01	.2277-01	63.16	1.073	.4090	541.5	.2481-03	.2762-03
58	.87200	518.62	53.000	.1387-01	.1668-01	.1857-01	63.33	.8783	.4075	539.4	.2024-03	.2252-03
58	.88100	467.72	58.000	.8861-01	.1068	.1190	62.81	5.566	.4122	545.7	.1295-02	.1443-02
58	.88100	501.33	61.000	.8538-02	.1027-01	.1143-01	63.32	.5406	.4076	539.6	.1246-03	.1387-03

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OH110, MODEL 60-0, OMS POD

(RAG011)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
57	8.894	7.300	27.50	.0000	1677.	1317.	321.9	.3046	115.1	.2221-03	3838.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3362
57	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
57	.83500	437.62	1.0000	.1718-01	.2079-01	.2323-01	62.21	1.069	.4243	559.3	.2545-03	.2844-03
57	.83500	451.57	2.0000	.3660-01	.4434-01	.4958-01	61.90	2.266	.4271	573.0	.5427-03	.6069-03
57	.83500	463.35	3.0000	.1812	.2194	.2453	61.99	11.23	.4263	571.9	.2686-02	.3003-02
57	.83500	474.41	4.0000	.1485	.1799	.2011	62.01	9.209	.4262	571.8	.2202-02	.2461-02
57	.83500	485.17	5.0000	.6272-01	.7596-01	.8492-01	61.99	3.888	.4263	571.9	.9298-03	.1039-02
57	.83500	497.18	7.0000	.2424-01	.2935-01	.3280-01	62.12	1.505	.4251	570.4	.3593-03	.4016-03
57	.83500	495.98	8.0000	.3999-01	.4840-01	.5407-01	62.26	2.490	.4239	568.7	.5925-03	.6620-03
57	.84300	434.29	9.0000	.9706-02	.1175-01	.1313-01	62.19	.6037	.4245	569.5	.1438-03	.1607-03
57	.84300	446.10	10.000	.3584-01	.4341-01	.4852-01	62.03	2.223	.4260	573.0	.5313-03	.5939-03
57	.84300	459.73	11.000	.4876-01	.5907-01	.6605-01	61.91	3.018	.4271	573.2	.7229-03	.8084-03
57	.84300	472.01	12.000	.1603	.1942	.2171	61.89	9.918	.4273	573.2	.2376-02	.2658-02
57	.84300	482.44	13.000	.1060	.1284	.1435	61.93	6.562	.4269	572.7	.1571-02	.1757-02
57	.84300	492.89	14.000	.7129-01	.8635-01	.9655-01	61.95	4.416	.4267	572.4	.1057-02	.1182-02
57	.84300	501.43	15.000	.5889-01	.7131-01	.7973-01	62.01	3.682	.4261	571.7	.8729-03	.9759-03
57	.84300	508.10	16.000	.3743-01	.4532-01	.5067-01	62.05	2.322	.4258	571.3	.5548-03	.6202-03
57	.84300	510.38	17.000	.3615-01	.4375-01	.4889-01	62.22	2.250	.4243	569.2	.5356-03	.5985-03
57	.84300	504.13	18.000	.4346-01	.5259-01	.5876-01	62.28	2.707	.4238	568.5	.6438-03	.7193-03
57	.85400	437.47	19.000	.1347-01	.1630-01	.1822-01	62.11	.8365	.4252	570.5	.1996-03	.2231-03
57	.85400	449.66	20.000	.3266-01	.3956-01	.4423-01	61.94	2.023	.4268	572.6	.4842-03	.5414-03
57	.85400	462.41	21.000	.5267-01	.6382-01	.7137-01	61.85	3.257	.4276	573.7	.7811-03	.8735-03
57	.85400	475.11	22.000	.1268	.1536	.1718	61.83	7.838	.4278	573.9	.1880-02	.2103-02
57	.85400	485.84	23.000	.7809-01	.9461-01	.1058	61.87	4.831	.4274	573.4	.1158-02	.1295-02

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OH110 (ARC3.5HWT-253) ORBITTER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
57	.85400	495.69	24.000	.4434-01	.5372-01	.6007-01	61.92	2.746	.4270	572.9	.6575-03	.7352-03
57	.85400	504.61	25.000	.4469-01	.5413-01	.6053-01	61.96	2.769	.4267	572.4	.6626-03	.7409-03
57	.85400	512.79	26.000	.3491-01	.4227-01	.4726-01	62.02	2.165	.4261	571.6	.5174-03	.5785-03
57	.85400	517.49	27.000	.2166-01	.2623-01	.2931-01	62.09	1.345	.4255	570.8	.3210-03	.3588-03
57	.85400	514.51	28.000	.3000-01	.3630-01	.4057-01	62.20	1.866	.4244	569.4	.4444-03	.4966-03
57	.85400	506.42	29.000	.3668-01	.4437-01	.4958-01	62.31	2.285	.4235	568.1	.5432-03	.6069-03
57	.86200	427.05	30.000	.3986-02	.4824-02	.5390-02	62.23	.2481	.4242	569.0	.5905-04	.6599-04
57	.86200	438.95	31.000	.1259-01	.1525-01	.1704-01	62.04	.7812	.4259	571.3	.1866-03	.2086-03
57	.86200	451.59	32.000	.4160-01	.5040-01	.5636-01	61.88	2.574	.4273	573.2	.6169-03	.6898-03
57	.86200	478.95	34.000	.8372-01	.1014	.1134	61.87	5.180	.4274	573.4	.1241-02	.1388-02
57	.86200	488.55	35.000	.5373-01	.6510-01	.7280-01	61.89	3.326	.4272	573.1	.7968-03	.8910-03
57	.86200	498.45	36.000	.2973-01	.3601-01	.4027-01	61.91	1.840	.4271	573.0	.4408-03	.4929-03
57	.86200	507.16	37.000	.2412-01	.2921-01	.3266-01	61.96	1.494	.4266	572.3	.3576-03	.3998-03
57	.86200	515.29	38.000	.2484-01	.3008-01	.3363-01	62.05	1.542	.4258	571.2	.3682-03	.4116-03
57	.86200	521.19	39.000	.1716-01	.2078-01	.2322-01	62.10	1.066	.4254	570.7	.2543-03	.2843-03
57	.86200	520.43	40.000	.2056-01	.2488-01	.2781-01	62.17	1.278	.4247	569.8	.3046-03	.3404-03
57	.86200	512.69	41.000	.2978-01	.3603-01	.4026-01	62.29	1.855	.4237	568.4	.4411-03	.4928-03
57	.87200	428.93	42.000	.5687-02	.6884-02	.7693-02	62.16	.3535	.4248	569.9	.8426-04	.9417-04
57	.87200	441.15	43.000	.1299-01	.1573-01	.1758-01	62.03	.8057	.4260	571.5	.1925-03	.2152-03
57	.87200	452.74	44.000	.4362-01	.5284-01	.5909-01	61.92	2.701	.4270	572.8	.6468-03	.7232-03
57	.87200	466.33	45.000	.2068-01	.2501-01	.2795-01	62.31	1.288	.4234	568.1	.3062-03	.3421-03
57	.87200	479.54	46.000	.6707-01	.8127-01	.9088-01	61.86	4.149	.4275	573.5	.9947-03	.1112-02
57	.87200	489.71	47.000	.4323-01	.5237-01	.5857-01	61.89	2.676	.4272	573.1	.6410-03	.7169-03
57	.87200	499.35	48.000	.2138-01	.2590-01	.2895-01	61.94	1.324	.4268	572.5	.3170-03	.3544-03
57	.87200	508.42	49.000	.1367-01	.1656-01	.1851-01	62.01	.8480	.4261	571.7	.2027-03	.2266-03
57	.87200	516.86	50.000	.1499-01	.1815-01	.2029-01	62.06	.9304	.4257	571.1	.2222-03	.2484-03
57	.87200	524.20	51.000	.1331-01	.1612-01	.1801-01	62.11	.8269	.4252	570.5	.1973-03	.2205-03
57	.87200	524.50	52.000	.1472-01	.1782-01	.1991-01	62.17	.9153	.4247	569.8	.2181-03	.2438-03
57	.87200	518.62	53.000	.1069-01	.1294-01	.1445-01	62.36	.6669	.4231	567.6	.1584-03	.1769-03
57	.88100	467.72	58.000	.8851-01	.1073	.1199	61.85	5.474	.4276	573.7	.1313-02	.1468-02
57	.88100	501.33	61.000	.8466-02	.1024-01	.1145-01	62.25	.5270	.4240	568.8	.1254-03	.1401-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
55	9.109	7.300	30.00	.0000	1686.	1303.	318.2	.3065	113.8	.2261-03	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3368
55	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	ODOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
55	.83500	437.62	1.0000	.8838-02	.1068-01	.1193-01	62.04	.5483	.4207	557.9	.1295-03	.1446-03
55	.83500	451.57	2.0000	.8478-02	.1026-01	.1146-01	61.71	.5232	.4237	561.9	.1243-03	.1389-03
55	.83500	463.35	3.0000	.4421-01	.5348-01	.5975-01	61.78	2.732	.4230	560.9	.6483-03	.7242-03
55	.83500	474.41	4.0000	.1009	.1221	.1364	61.79	6.236	.4230	560.9	.1480-02	.1653-02
55	.83500	485.17	5.0000	.9214-01	.1115	.1245	61.79	5.693	.4230	560.9	.1351-02	.1509-02
55	.83500	497.18	7.0000	.4721-01	.5708-01	.6374-01	61.94	2.925	.4216	559.1	.6919-03	.7727-03
55	.83500	495.98	8.0000	.5912-01	.7144-01	.7975-01	62.10	3.671	.4202	557.2	.8661-03	.9668-03
55	.84300	434.29	9.0000	.5987-02	.7236-02	.8079-02	61.81	.3713	.4208	558.1	.8772-04	.9794-04
55	.84300	446.10	10.000	.2091-01	.2528-01	.2824-01	61.83	1.293	.4226	560.4	.3065-03	.3423-03
55	.84300	459.73	11.000	.3132-01	.3790-01	.4234-01	61.69	1.932	.4238	562.1	.4593-03	.5132-03
55	.84300	472.01	12.000	.5368-01	.6496-01	.7258-01	61.66	3.310	.4241	562.4	.7873-03	.8797-03
55	.84300	482.44	13.000	.7723-01	.9345-01	.1044	61.70	4.766	.4238	561.9	.1133-02	.1266-02
55	.84300	492.89	14.000	.9017-01	.1091	.1219	61.73	5.566	.4235	561.7	.1322-02	.1477-02
55	.84300	501.43	15.000	.8033-01	.9717-01	.1085	61.81	4.965	.4228	560.7	.1178-02	.1316-02
55	.84300	508.10	16.000	.4909-01	.5937-01	.6631-01	61.85	3.036	.4225	560.2	.7196-03	.8038-03
55	.84300	510.38	17.000	.5842-01	.7062-01	.7885-01	62.00	3.622	.4211	558.4	.8561-03	.9559-03
55	.84300	504.13	18.000	.4714-01	.5696-01	.6359-01	62.12	2.928	.4200	557.0	.6906-03	.7709-03
55	.85400	437.47	19.000	.8482-02	.1025-01	.1145-01	61.96	.5256	.4214	558.9	.1243-03	.1388-03
55	.85400	449.66	20.000	.2570-01	.3109-01	.3473-01	61.76	1.587	.4232	561.2	.3768-03	.4209-03
55	.85400	462.41	21.000	.4363-01	.5280-01	.5900-01	61.65	2.689	.4243	562.6	.6399-03	.7151-03
55	.85400	475.11	22.000	.5428-01	.6570-01	.7342-01	61.63	3.345	.4244	562.8	.7963-03	.8898-03
55	.85400	485.84	23.000	.6967-01	.8430-01	.9420-01	61.67	4.296	.4241	562.3	.1022-02	.1142-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.950
55	.85400	495.69	24.000	.6980-01	.8446-01	.9436-01	61.72	4.308	.4236	561.8	.1024-02	.1144-02
55	.85400	504.61	25.000	.5598-01	.6771-01	.7565-01	61.77	3.458	.4231	561.1	.8208-03	.9169-03
55	.85400	512.79	26.000	.3740-01	.4523-01	.5052-01	61.85	2.313	.4225	560.2	.5483-03	.6124-03
55	.85400	517.49	27.000	.2485-01	.3005-01	.3355-01	61.93	1.539	.4217	559.2	.3642-03	.4067-03
55	.85400	514.51	28.000	.3383-01	.4089-01	.4565-01	62.05	2.099	.4206	557.8	.4957-03	.5534-03
55	.85400	506.42	29.000	.3341-01	.4036-01	.4505-01	62.18	2.077	.4195	556.3	.4893-03	.5462-03
55	.86200	427.05	30.000	.3350-02	.4048-02	.4519-02	62.09	.2080	.4203	557.3	.4907-04	.5478-04
55	.86200	438.95	31.000	.1005-01	.1215-01	.1357-01	61.86	.6217	.4224	560.1	.1473-03	.1645-03
55	.86200	451.59	32.000	.3775-01	.4568-01	.5104-01	61.67	2.328	.4241	562.4	.5536-03	.6186-03
55	.86200	478.95	34.000	.5247-01	.6349-01	.7095-01	61.66	3.235	.4242	562.5	.7695-03	.8599-03
55	.86200	488.55	35.000	.5344-01	.6467-01	.7226-01	61.67	3.296	.4239	562.3	.7838-03	.8758-03
55	.86200	498.45	36.000	.4904-01	.5934-01	.6630-01	61.69	3.025	.4231	562.1	.7193-03	.8037-03
55	.86200	507.16	37.000	.3603-01	.4358-01	.4869-01	61.77	2.226	.4231	561.1	.5283-03	.5902-03
55	.86200	515.29	38.000	.2466-01	.2982-01	.3330-01	61.87	1.526	.4222	559.9	.3615-03	.4037-03
55	.86200	521.19	39.000	.1729-01	.2090-01	.2335-01	61.93	1.071	.4217	559.2	.2534-03	.2830-03
55	.86200	520.43	40.000	.2035-01	.2459-01	.2746-01	62.01	1.262	.4210	558.3	.2981-03	.3329-03
55	.86200	512.69	41.000	.2831-01	.3420-01	.3818-01	62.15	1.759	.4197	556.6	.4147-03	.4629-03
55	.87200	428.93	42.000	.4724-02	.5711-02	.6377-02	61.98	.2928	.4213	558.7	.6923-04	.7731-04
55	.87200	441.15	43.000	.1151-01	.1392-01	.1555-01	61.83	.7116	.4226	560.4	.1687-03	.1895-03
55	.87200	452.74	44.000	.3891-01	.4708-01	.5260-01	61.70	2.401	.4238	562.0	.5706-03	.6376-03
55	.87200	466.33	45.000	.1908-01	.2307-01	.2576-01	61.99	1.183	.4212	558.5	.2796-03	.3122-03
55	.87200	479.54	46.000	.5195-01	.6287-01	.7026-01	61.63	3.201	.4244	562.9	.7620-03	.8516-03
55	.87200	489.71	47.000	.3684-01	.4458-01	.4982-01	61.67	2.272	.4241	562.4	.5404-03	.6038-03
55	.87200	499.35	48.000	.3231-01	.3909-01	.4367-01	61.73	1.994	.4236	561.7	.4738-03	.5293-03
55	.87200	508.42	49.000	.2307-01	.2790-01	.3117-01	61.79	1.425	.4230	560.9	.3382-03	.3778-03
55	.87200	516.86	50.000	.1724-01	.2085-01	.2329-01	61.87	1.067	.4222	559.9	.2528-03	.2823-03
55	.87200	524.20	51.000	.1158-01	.1400-01	.1563-01	61.95	.7172	.4216	559.0	.1697-03	.1895-03
55	.87200	524.50	52.000	.1269-01	.1534-01	.1713-01	62.02	.7872	.4209	558.2	.1860-03	.2077-03
55	.87200	518.62	53.000	.9998-02	.1208-01	.1348-01	62.21	.6220	.4192	555.9	.1464-03	.1634-03
55	.88100	467.72	58.000	.8069-01	.9767-01	.1091	61.61	4.971	.4246	563.1	.1184-02	.1323-02
55	.88100	501.33	61.000	.9408-02	.1137-01	.1270-01	61.93	.5826	.4217	559.2	.1379-03	.1540-03

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(RAG012)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
68	3.728	7.300	27.50	-2.000	689.8	1302.	318.1	.1254	113.7	.9253-04	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2154
68	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
68	.83500	437.62	1.0000	.4077-01	.4930-01	.5506-01	39.59	1.614	.4218	559.3	.9342-03	.1043-02
68	.83500	451.57	2.0000	.1718	.2078	.2321	39.52	6.789	.4229	560.7	.3937-02	.4398-02
68	.83500	463.35	3.0000	.3166	.3831	.4280	39.47	12.50	.4235	561.5	.7259-02	.8110-02
68	.83500	474.41	4.0000	.1618	.1958	.2187	39.47	6.387	.4236	561.6	.3710-02	.4145-02
68	.83500	485.17	5.0000	.6102-01	.7383-01	.8248-01	39.47	2.409	.4236	561.6	.1399-02	.1563-02
68	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
68	.83500	495.98	8.0000	.3006-01	.3635-01	.4059-01	39.60	1.191	.4218	559.2	.6889-03	.7693-03
68	.84300	434.29	9.0000	.2825-01	.3416-01	.3815-01	39.60	1.119	.4218	559.2	.6474-03	.7229-03
68	.84300	446.10	10.000	.1012	.1225	.1368	39.52	4.001	.4229	560.7	.2320-02	.2592-02
68	.84300	459.73	11.000	.2918	.3531	.3945	39.45	11.51	.4238	562.0	.6690-02	.7474-02
68	.84300	472.01	12.000	.2100	.2541	.2840	39.44	8.282	.4241	562.3	.4815-02	.5380-02
68	.84300	482.44	13.000	.1119	.1354	.1513	39.45	4.415	.4239	562.0	.2566-02	.2867-02
68	.84300	492.89	14.000	.1144	.1385	.1547	39.45	4.515	.4238	561.9	.2624-02	.2931-02
68	.84300	501.43	15.000	.8093-01	.9791-01	.1094	39.49	3.196	.4233	561.3	.1855-02	.2073-02
68	.84300	508.10	16.000	.3797-01	.4594-01	.5132-01	39.50	1.500	.4231	561.0	.8704-03	.9724-03
68	.84300	510.38	17.000	.2751-01	.3327-01	.3715-01	39.60	1.089	.4218	559.2	.6304-03	.7040-03
68	.84300	504.13	18.000	.2273-01	.2748-01	.3069-01	39.62	.9005	.4215	558.9	.5208-03	.5816-03
68	.85400	437.47	19.000	.3391-01	.4089-01	.4558-01	40.13	1.361	.4142	549.2	.7752-03	.8641-03
68	.85400	449.66	20.000	.1225	.1477	.1647	40.05	4.906	.4153	550.7	.2801-02	.3123-02
68	.85400	462.41	21.000	.2153	.2597	.2896	40.02	8.615	.4158	551.3	.4924-02	.5491-02
68	.85400	475.11	22.000	.1331	.1606	.1791	40.02	5.328	.4158	551.3	.3045-02	.3396-02
68	.85400	485.84	23.000	.6698-01	.8080-01	.9010-01	40.04	2.682	.4155	550.9	.1532-02	.1708-02

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OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
68	.85400	495.69	24.000	.5627-01	.6789-01	.7570-01	40.02	2.252	.4158	551.3	.1287-02	.1435-02
68	.85400	504.61	25.000	.7180-01	.8662-01	.9659-01	40.04	2.875	.4156	551.0	.1642-02	.1831-02
68	.85400	512.79	26.000	.5367-01	.6474-01	.7218-01	40.07	2.151	.4151	550.4	.1227-02	.1368-02
68	.85400	514.51	27.000	.2117-01	.2553-01	.2847-01	40.10	.8489	.4147	549.9	.4841-03	.5397-03
68	.85400	514.51	28.000	.1987-01	.2396-01	.2671-01	40.15	.7978	.4140	548.9	.4542-03	.5063-03
68	.85400	506.42	29.000	.1966-01	.2370-01	.2641-01	40.21	.7904	.4131	547.8	.4492-03	.5007-03
68	.86200	427.05	30.000	.8614-02	.1038-01	.1157-01	40.20	.3463	.4132	547.9	.1969-03	.2194-03
68	.86200	438.95	31.000	.3330-01	.4016-01	.4478-01	40.10	1.335	.4147	549.9	.7614-03	.8488-03
68	.86200	451.59	32.000	.1591	.1920	.2141	40.03	6.368	.4157	551.2	.3639-02	.4058-02
68	.86200	478.95	34.000	.6639-01	.8011-01	.8934-01	40.00	2.656	.4161	551.6	.1519-02	.1694-02
68	.86200	488.55	35.000	.4683-01	.5650-01	.6300-01	40.03	1.875	.4156	551.1	.1071-02	.1194-02
68	.86200	498.45	36.000	.3261-01	.3935-01	.4388-01	40.03	1.306	.4157	551.1	.7459-03	.8318-03
68	.86200	507.16	37.000	.3318-01	.4002-01	.4462-01	40.07	1.329	.4152	550.4	.7587-03	.8459-03
68	.86200	515.29	38.000	.3935-01	.4746-01	.5291-01	40.10	1.578	.4147	549.8	.8997-03	.1003-02
68	.86200	521.19	39.000	.2364-01	.2851-01	.3178-01	40.12	.9484	.4144	549.5	.5404-03	.6025-03
68	.86200	520.43	40.000	.1834-01	.2211-01	.2465-01	40.15	.7363	.4140	548.9	.4192-03	.4673-03
68	.86200	512.69	41.000	.1841-01	.2219-01	.2473-01	40.21	.7401	.4131	547.7	.4207-03	.4688-03
68	.87200	428.93	42.000	.8653-02	.1043-01	.1163-01	40.17	.3476	.4137	548.5	.1978-03	.2204-03
68	.87200	441.15	43.000	.3584-01	.4323-01	.4820-01	40.10	1.437	.4147	549.8	.8195-03	.9137-03
68	.87200	452.74	44.000	.1569	.1892	.2110	40.05	6.282	.4154	550.8	.3587-02	.4000-02
68	.87200	466.33	45.000	.2300-01	.2772-01	.3089-01	40.25	.9259	.4125	546.9	.5255-03	.5856-03
68	.87200	479.54	46.000	.4692-01	.5661-01	.6313-01	40.03	1.878	.4157	551.1	.1073-02	.1197-02
68	.87200	489.71	47.000	.3596-01	.4338-01	.4837-01	40.03	1.440	.4156	551.0	.8224-03	.9170-03
68	.87200	498.35	48.000	.2294-01	.2767-01	.3085-01	40.08	.9194	.4150	550.3	.5246-03	.5849-03
68	.87200	508.42	49.000	.1598-01	.1928-01	.2149-01	40.10	.6409	.4147	549.8	.3654-03	.4074-03
68	.87200	516.86	50.000	.2064-01	.2489-01	.2775-01	40.11	.8280	.4145	549.6	.4719-03	.5261-03
68	.87200	524.20	51.000	.1886-01	.2274-01	.2534-01	40.15	.7570	.4140	549.0	.4310-03	.4805-03
68	.87200	524.50	52.000	.1417-01	.1708-01	.1904-01	40.16	.5691	.4138	548.6	.3239-03	.3610-03
68	.87200	518.62	53.000	.1055-01	.1271-01	.1416-01	40.25	.4245	.4125	547.0	.2410-03	.2685-03
68	.88100	467.72	58.000	.7052-01	.8509-01	.9490-01	40.01	2.821	.4160	551.6	.1513-02	.1799-02
68	.88100	501.33	61.000	.8746-02	.1057-01	.1181-01	39.60	.3463	.4218	559.2	.2004-03	.2238-03

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OMS POD (60-O)

OH110, MODEL 60-O, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
69	8.971	7.300	27.50	-2.000	1675.	1310.	320.0	.3044	114.4	.2233-03	3827.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
69	.0000	.3359

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
69	.83500	437.62	1.0000	.4887-01	.5905-01	.6592-01	62.28	3.043	.4201	560.2	.7207-03	.8045-03
69	.83500	451.57	2.0000	.2114	.2556	.2854	62.14	13.14	.4213	561.8	.3119-02	.3483-02
69	.83500	463.35	3.0000	.2161	.2613	.2918	62.08	13.41	.4218	562.5	.3188-02	.3561-02
69	.83500	474.41	4.0000	.1279	.1547	.1728	62.09	7.944	.4217	562.4	.1888-02	.2108-02
69	.83500	485.17	5.0000	.5596-01	.6766-01	.7557-01	62.07	3.473	.4219	562.7	.8257-03	.9222-03
69	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
69	.83500	495.98	8.0000	.4626-01	.5590-01	.6239-01	62.29	2.882	.4199	559.9	.6822-03	.7615-03
69	.84300	434.29	9.0000	.4953-01	.5985-01	.6682-01	62.26	3.084	.4202	560.4	.7305-03	.8155-03
69	.84300	446.10	10.000	.1557	.1883	.2103	62.10	9.672	.4216	562.3	.2298-02	.2566-02
69	.84300	459.73	11.000	.2177	.2634	.2942	61.98	13.50	.4227	563.7	.3214-02	.3590-02
69	.84300	472.01	12.000	.1408	.1703	.1903	61.95	8.723	.4230	564.1	.2079-02	.2322-02
69	.84300	482.44	13.000	.9001-01	.1089	.1216	62.00	5.580	.4225	563.5	.1328-02	.1484-02
69	.84300	492.89	14.000	.8418-01	.1018	.1137	62.02	5.221	.4224	563.3	.1242-02	.1388-02
69	.84300	501.43	15.000	.7257-01	.8775-01	.9800-01	62.07	4.505	.4219	562.7	.1071-02	.1196-02
69	.84300	508.10	16.000	.3852-01	.4658-01	.5201-01	62.10	2.392	.4217	562.3	.5684-03	.6347-03
69	.84300	510.38	17.000	.3355-01	.4055-01	.4528-01	62.19	2.086	.4208	561.2	.4949-03	.5526-03
69	.84300	504.13	18.000	.3728-01	.4504-01	.5027-01	62.31	2.323	.4197	559.7	.7222-03	.8051-03
69	.84300	437.47	19.000	.4905-01	.5915-01	.6595-01	62.88	3.084	.4146	552.9	.5497-03	.6135-03
69	.85400	449.66	20.000	.1361	.1642	.1831	62.72	8.533	.4161	554.9	.2004-02	.2235-02
69	.85400	462.41	21.000	.1668	.2014	.2246	62.63	10.45	.4168	555.9	.2458-02	.2742-02
69	.85400	475.11	22.000	.1051	.1269	.1416	62.61	6.584	.4170	556.1	.1549-02	.1728-02
69	.85400	485.84	23.000	.5744-01	.6932-01	.7732-01	62.66	3.599	.4166	555.5	.8462-03	.9439-03

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OH110, MODEL 60-O, OHS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
69	.85400	495.69	24.000	.4896-01	.5908-01	.6588-01	62.70	3.070	.4162	555.1	.7212-03	.8043-03
69	.85400	504.61	25.000	.5270-01	.6359-01	.7092-01	62.74	3.307	.4159	554.6	.7763-03	.8657-03
69	.85400	512.79	26.000	.4702-01	.5672-01	.6325-01	62.78	2.952	.4155	554.1	.6925-03	.7722-03
69	.85400	517.49	27.000	.2431-01	.2932-01	.3269-01	62.84	1.528	.4150	553.4	.3580-03	.3991-03
69	.85400	514.51	28.000	.2879-01	.3472-01	.3870-01	62.95	1.812	.4140	552.1	.4239-03	.4725-03
69	.85400	506.42	29.000	.3761-01	.4533-01	.5052-01	63.06	2.372	.4130	550.7	.5535-03	.6168-03
69	.86200	427.05	30.000	.1264-01	.1524-01	.1695-01	62.98	.7962	.4137	551.7	.1861-03	.2074-03
69	.86200	438.95	31.000	.3487-01	.4206-01	.4690-01	62.80	2.189	.4154	553.9	.5135-03	.5725-03
69	.86200	451.59	32.000	.1440	.1738	.1939	62.64	9.022	.4168	555.8	.2122-02	.2367-02
69	.86200	478.95	34.000	.6223-01	.7510-01	.8377-01	62.65	3.898	.4167	555.7	.9168-03	.1023-02
69	.86200	488.55	35.000	.4227-01	.5101-01	.5689-01	62.68	2.650	.4164	555.3	.6227-03	.6945-03
69	.86200	498.45	36.000	.2986-01	.3603-01	.4019-01	62.68	1.872	.4164	555.3	.4399-03	.4906-03
69	.86200	507.16	37.000	.2764-01	.3335-01	.3719-01	62.75	1.734	.4164	554.4	.4340-03	.4839-03
69	.86200	515.29	38.000	.2947-01	.3555-01	.3964-01	62.82	1.852	.4151	553.6	.4071-03	.4540-03
69	.86200	521.19	39.000	.2249-01	.2713-01	.3024-01	62.86	1.414	.4148	553.2	.3312-03	.3692-03
69	.86200	520.43	40.000	.2403-01	.2898-01	.3230-01	62.93	1.512	.4142	552.3	.3538-03	.3944-03
69	.86200	512.69	41.000	.2906-01	.3503-01	.3903-01	63.05	1.832	.4131	550.9	.4276-03	.4766-03
69	.87200	428.93	42.000	.1021-01	.1231-01	.1372-01	62.90	.6420	.4144	552.6	.1502-03	.1675-03
69	.87200	441.15	43.000	.2947-01	.3536-01	.3965-01	62.79	1.851	.4154	554.0	.4341-03	.4840-03
69	.87200	452.74	44.000	.1204	.1453	.1620	62.67	7.544	.4165	555.4	.1773-02	.1978-02
69	.87200	466.33	45.000	.2041-01	.2460-01	.2741-01	63.08	1.287	.4128	550.5	.3004-03	.3347-03
69	.87200	479.54	46.000	.5351-01	.6453-01	.7204-01	62.64	3.352	.4168	555.8	.7884-03	.8794-03
69	.87200	489.71	47.000	.3255-01	.3928-01	.4381-01	62.68	2.040	.4164	555.3	.4795-03	.5348-03
69	.87200	499.35	48.000	.2053-01	.2477-01	.2762-01	62.74	1.288	.4159	554.6	.3024-03	.3372-03
69	.87200	508.42	49.000	.1433-01	.1729-01	.1928-01	62.79	.9001	.4154	554.0	.2111-03	.2354-03
69	.87200	516.86	50.000	.1616-01	.1950-01	.2174-01	62.83	1.016	.4150	553.5	.2380-03	.2654-03
69	.87200	524.20	51.000	.1516-01	.1829-01	.2039-01	62.89	.9537	.4145	552.7	.2233-03	.2489-03
69	.87200	524.50	52.000	.1854-01	.2235-01	.2491-01	62.95	1.167	.4140	552.1	.2729-03	.3042-03
69	.87200	518.62	53.000	.1188-01	.1431-01	.1594-01	63.15	.7499	.4122	549.7	.1747-03	.1947-03
69	.88100	467.72	58.000	.7146-01	.8625-01	.9621-01	62.63	4.476	.4169	555.9	.1053-02	.1174-02
69	.88100	501.33	61.000	.7202-02	.8702-02	.9714-02	62.29	.4486	.4199	559.9	.1062-03	.1186-03

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OH110, MODEL 60-0, OMS POD

(RAG014)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
72	3.701	7.300	27.50	-1.000	690.4	1309.	319.8	.1255	114.3	.9211-04	3826.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
72	.0000	.2156

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
72	.83500	437.62	1.0000	.2154-01	.2602-01	.2904-01	40.00	.8616	.4193	558.8	.4945-03	.5519-03
72	.83500	451.57	2.0000	.4578-01	.5532-01	.6175-01	39.96	1.829	.4199	559.6	.1051-02	.1173-02
72	.83500	463.35	3.0000	.2454	.2965	.3310	39.96	9.806	.4199	559.6	.5635-02	.6290-02
72	.83500	474.41	4.0000	.1933	.2335	.2607	39.96	7.723	.4199	559.6	.4438-02	.4954-02
72	.83500	485.17	5.0000	.6265-01	.7570-01	.8450-01	39.96	2.504	.4199	559.5	.1439-02	.1606-02
72	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
72	.83500	495.98	8.0000	.2765-01	.3339-01	.3726-01	40.04	1.107	.4187	558.0	.6346-03	.7081-03
72	.84300	434.29	9.0000	.1395-01	.1686-01	.1881-01	40.00	.5582	.4193	558.8	.3203-03	.3575-03
72	.84300	446.10	10.0000	.5908-01	.7139-01	.7969-01	39.96	2.361	.4199	559.6	.1357-02	.1514-02
72	.84300	459.73	11.0000	.1284	.1551	.1732	39.92	5.125	.4205	560.4	.2948-02	.3291-02
72	.84300	472.01	12.0000	.2460	.2974	.3320	39.92	9.822	.4205	560.4	.5651-02	.6308-02
72	.84300	482.44	13.0000	.1326	.1603	.1789	39.94	5.297	.4202	560.0	.3046-02	.3400-02
72	.84300	492.89	14.0000	.1096	.1324	.1478	39.95	4.378	.4200	559.8	.2516-02	.2809-02
72	.84300	501.43	15.0000	.6324-01	.7641-01	.8528-01	39.98	2.529	.4196	559.2	.1452-02	.1621-02
72	.84300	508.10	16.0000	.3261-01	.3940-01	.4398-01	40.00	1.304	.4194	558.9	.7488-03	.8357-03
72	.84300	510.38	17.0000	.2918-01	.3525-01	.3935-01	40.00	1.167	.4193	558.8	.6700-03	.7478-03
72	.84300	504.13	18.0000	.1859-01	.2245-01	.2506-01	40.06	.7448	.4185	557.8	.4267-03	.4762-03
72	.85400	437.47	19.0000	.1730-01	.2083-01	.2319-01	40.72	.7044	.4093	545.4	.3960-03	.4409-03
72	.85400	449.66	20.0000	.8185-01	.9855-01	.1097	40.67	3.329	.4099	546.2	.1874-02	.2087-02
72	.85400	462.41	21.0000	.1581	.1904	.2121	40.66	6.430	.4100	546.5	.3621-02	.4032-02
72	.85400	475.11	22.0000	.1727	.2080	.2316	40.67	7.026	.4099	546.3	.3955-02	.4404-02
72	.85400	485.84	23.0000	.7691-01	.9259-01	.1031	40.71	3.131	.4094	545.5	.1761-02	.1960-02

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OH110, MODEL 60-0, OMS POD

(RAG014)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
72	.85400	495.69	24.000	.6070-01	.7308-01	.8138-01	40.68	2.469	.4098	545.2	.1390-02	.1547-02
72	.85400	504.61	25.000	.7173-01	.8636-01	.9617-01	40.70	2.919	.4096	545.6	.1642-02	.1829-02
72	.85400	512.79	26.000	.3558-01	.4284-01	.4769-01	40.72	1.449	.4093	545.4	.8145-03	.9069-03
72	.85400	517.49	27.000	.1831-01	.2204-01	.2454-01	40.73	.7459	.4090	545.1	.4191-03	.4666-03
72	.85400	514.51	28.000	.1955-01	.2353-01	.2620-01	40.77	.7972	.4086	544.5	.4475-03	.4982-03
72	.85400	506.42	29.000	.1672-01	.2012-01	.2240-01	40.81	.6825	.4080	543.8	.3827-03	.4260-03
72	.86200	427.05	30.000	.4635-02	.5578-02	.6210-02	40.76	.1889	.4087	544.7	.1061-03	.1181-03
72	.86200	438.95	31.000	.1688-01	.2033-01	.2264-01	40.68	.6869	.4098	546.1	.3865-03	.4304-03
72	.86200	451.59	32.000	.1215	.1463	.1629	40.65	4.937	.4103	546.7	.2781-02	.3097-02
72	.86200	478.95	34.000	.7861-01	.9465-01	.1054	40.66	3.196	.4101	546.5	.1800-02	.2004-02
72	.86200	488.55	35.000	.4948-01	.5958-01	.6634-01	40.69	2.013	.4097	546.0	.1133-02	.1261-02
72	.86200	498.45	36.000	.3494-01	.4207-01	.4685-01	40.68	1.421	.4098	546.1	.7999-03	.8907-03
72	.86200	507.16	37.000	.3691-01	.4443-01	.4947-01	40.71	1.503	.4093	545.5	.8448-03	.9407-03
72	.86200	515.29	38.000	.3567-01	.4294-01	.4780-01	40.74	1.453	.4089	544.9	.8165-03	.9090-03
72	.86200	521.19	39.000	.1721-01	.2071-01	.2306-01	40.78	.7293	.4084	544.3	.4093-03	.4556-03
72	.86200	520.43	40.000	.1789-01	.2152-01	.2396-01	40.78	.6936	.4078	543.4	.3887-03	.4327-03
72	.87200	512.69	41.000	.1699-01	.2044-01	.2275-01	40.82	.1931	.4090	545.0	.1085-03	.1208-03
72	.87200	428.93	42.000	.4740-02	.5705-02	.6352-02	40.74	.8072	.4094	545.7	.4539-03	.5054-03
72	.87200	441.15	43.000	.1983-01	.2387-01	.2658-01	40.71	4.480	.4099	546.2	.2522-02	.2808-02
72	.87200	452.74	44.000	.1102	.1326	.1477	40.67	1.090	.4070	542.4	.6097-03	.6785-03
72	.87200	466.33	45.000	.2665-01	.3206-01	.3568-01	40.88	2.165	.4098	542.4	.1218-02	.1357-02
72	.87200	479.54	46.000	.5321-01	.6407-01	.7134-01	40.68	1.524	.4096	545.9	.8574-03	.9548-03
72	.87200	499.35	47.000	.3745-01	.4509-01	.5021-01	40.69	.9387	.4091	545.2	.5275-03	.5874-03
72	.87200	508.42	48.000	.2305-01	.2774-01	.3089-01	40.73	.6913	.4088	544.8	.3882-03	.4322-03
72	.87200	516.86	49.000	.1696-01	.2042-01	.2273-01	40.75	.9119	.4088	544.8	.5121-03	.5701-03
72	.87200	524.20	50.000	.2238-01	.2693-01	.2998-01	40.75	.6332	.4082	544.0	.3552-03	.3954-03
72	.87200	524.50	51.000	.1552-01	.1868-01	.2079-01	40.79	.5637	.4080	543.8	.3161-03	.3519-03
72	.87200	518.62	52.000	.1381-01	.1662-01	.1850-01	40.81	.4240	.4072	542.6	.2374-03	.2642-03
72	.88100	467.72	53.000	.1038-01	.1248-01	.1389-01	40.87	3.548	.4102	546.7	.1998-02	.2226-02
72	.88100	501.33	58.000	.8723-01	.1051	.1171	40.65	.3639	.4183	557.4	.2084-03	.2325-03
72	.88100		61.000	.9080-02	.1097-01	.1224-01	40.08					

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(RAG015)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
73	8.988	7.300	27.50	-1.000	1673.	1307.	319.3	.3040	114.1	.2235-03	3823.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3355
73	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
73	.83500	437.62	1.0000	.3180-01	.3838-01	.4281-01	62.48	1.987	.4164	554.0	.4683-03	.5223-03
73	.83500	451.57	2.0000	.1271	.1534	.1711	62.35	7.923	.4176	555.6	.1872-02	.2088-02
73	.83500	463.35	3.0000	.2161	.2609	.2911	62.31	13.46	.4180	556.1	.3183-02	.3552-02
73	.83500	474.41	4.0000	.1354	.1634	.1824	62.31	8.434	.4180	556.2	.1994-02	.2225-02
73	.83500	485.17	5.0000	.5287-01	.6385-01	.7124-01	62.28	3.293	.4182	556.5	.7789-03	.8691-03
73	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
73	.83500	495.98	8.0000	.5446-01	.6572-01	.7330-01	62.50	3.404	.4162	553.8	.8018-03	.8943-03
73	.84300	434.29	9.0000	.2516-01	.3036-01	.3386-01	62.46	1.571	.4166	554.3	.3704-03	.4131-03
73	.84300	446.10	10.000	.9218-01	.1113	.1242	62.31	5.744	.4179	556.1	.1358-02	.1515-02
73	.84300	459.73	11.000	.1909	.2306	.2573	62.20	11.87	.4190	557.5	.2813-02	.3139-02
73	.84300	472.01	12.000	.1588	.1918	.2141	62.18	9.873	.4191	557.7	.2340-02	.2611-02
73	.84300	482.44	13.000	.8492-01	.1026	.1145	62.22	5.284	.4187	557.2	.1251-02	.1396-02
73	.84300	492.89	14.000	.7393-01	.8928-01	.9963-01	62.25	4.602	.4185	556.9	.1089-02	.1215-02
73	.84300	501.43	15.000	.6360-01	.7680-01	.8569-01	62.30	3.962	.4181	556.3	.9369-03	.1045-02
73	.84300	508.10	16.000	.3594-01	.4339-01	.4841-01	62.31	2.239	.4180	556.1	.5293-03	.5906-03
73	.84300	510.38	17.000	.4417-01	.5332-01	.5948-01	62.40	2.756	.4171	555.0	.6505-03	.7256-03
73	.84300	504.13	18.000	.3671-01	.4429-01	.4939-01	62.53	2.295	.4160	553.5	.5404-03	.6026-03
73	.85400	437.47	19.000	.2757-01	.3328-01	.3712-01	62.39	1.720	.4172	555.1	.4060-03	.4529-03
73	.85400	449.66	20.000	.7607-01	.9187-01	.1025	62.24	4.734	.4186	557.0	.1121-02	.1251-02
73	.85400	462.41	21.000	.1653	.1997	.2229	62.15	10.27	.4194	558.1	.2436-02	.2719-02
73	.85400	475.11	22.000	.1176	.1421	.1586	62.14	7.310	.4195	558.1	.1733-02	.1935-02
73	.85400	485.84	23.000	.5848-01	.7064-01	.7883-01	62.20	3.638	.4189	557.4	.8617-03	.9616-03

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(RAGO15)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
73	.85400	495.69	24.000	.4561-01	.5508-01	.6147-01	62.23	2.838	.4187	557.0	.6720-03	.7499-03
73	.85400	504.61	25.000	.5070-01	.6123-01	.6833-01	62.26	3.157	.4184	556.7	.7470-03	.8335-03
73	.85400	512.79	26.000	.4053-01	.4894-01	.5461-01	62.31	2.526	.4180	556.1	.5971-03	.6662-03
73	.85400	517.49	27.000	.2516-01	.3038-01	.3389-01	62.36	1.569	.4175	555.5	.3706-03	.4134-03
73	.85400	514.51	28.000	.3044-01	.3674-01	.4097-01	62.47	1.902	.4165	554.2	.4482-03	.4999-03
73	.85400	506.42	29.000	.3342-01	.4031-01	.4495-01	62.58	2.091	.4155	552.9	.4919-03	.5485-03
73	.86200	427.05	30.000	.7629-02	.9206-02	.1027-01	62.51	.4769	.4162	553.7	.1123-03	.1253-03
73	.86200	438.95	31.000	.1902-01	.2296-01	.2562-01	62.32	1.185	.4178	556.0	.2801-03	.3126-03
73	.86200	451.59	32.000	.8960-01	.1082	.1208	62.17	5.570	.4192	557.8	.1320-02	.1474-02
73	.86200	478.95	34.000	.6509-01	.7863-01	.8775-01	62.18	4.048	.4191	557.6	.9592-03	.1070-02
73	.86200	488.55	35.000	.4302-01	.5196-01	.5799-01	62.23	2.677	.4187	557.1	.6339-03	.7074-03
73	.86200	498.45	36.000	.2967-01	.3583-01	.3998-01	62.23	1.846	.4186	557.0	.4371-03	.4878-03
73	.86200	507.16	37.000	.2633-01	.3179-01	.3547-01	62.29	1.640	.4181	556.3	.3878-03	.4327-03
73	.86200	515.29	38.000	.2801-01	.3381-01	.3772-01	62.35	1.746	.4176	555.6	.4125-03	.4602-03
73	.86200	521.19	39.000	.2188-01	.2842-01	.2947-01	62.38	1.365	.4173	555.2	.3223-03	.3595-03
73	.86200	520.43	40.000	.2351-01	.2837-01	.3165-01	62.45	1.468	.4166	554.4	.3462-03	.3861-03
73	.86200	512.69	41.000	.2650-01	.3197-01	.3565-01	62.57	1.658	.4156	552.9	.3901-03	.4350-03
73	.87200	428.93	42.000	.6474-02	.7815-02	.8717-02	62.42	.4041	.4170	554.8	.9534-04	.1064-03
73	.87200	441.15	43.000	.1757-01	.2121-01	.2367-01	62.32	1.095	.4179	556.0	.2588-03	.2887-03
73	.87200	452.74	44.000	.7638-01	.9226-01	.1030	62.21	4.752	.4189	557.3	.1125-02	.1256-02
73	.87200	466.33	45.000	.2549-01	.3075-01	.3429-01	62.63	1.597	.4151	552.3	.3752-03	.4183-03
73	.87200	479.54	46.000	.5426-01	.6554-01	.7315-01	62.18	3.374	.4191	557.7	.7995-03	.8923-03
73	.87200	489.71	47.000	.3300-01	.3985-01	.4447-01	62.22	2.053	.4188	557.2	.4861-03	.5425-03
73	.87200	499.35	48.000	.2114-01	.2553-01	.2849-01	62.29	1.317	.4182	556.4	.3114-03	.3475-03
73	.87200	508.42	49.000	.1356-01	.1685-01	.1880-01	62.34	.8702	.4177	555.8	.2056-03	.2294-03
73	.87200	516.86	50.000	.1582-01	.1910-01	.2131-01	62.36	.9867	.4175	555.5	.2330-03	.2599-03
73	.87200	524.20	51.000	.1474-01	.1779-01	.1985-01	62.42	.9200	.4170	554.8	.2170-03	.2421-03
73	.87200	524.50	52.000	.1817-01	.2193-01	.2446-01	62.47	1.135	.4165	554.2	.2675-03	.2984-03
73	.87200	518.62	53.000	.9518-02	.1148-01	.1280-01	62.69	.5967	.4146	551.6	.1401-03	.1561-03
73	.88100	467.72	58.000	.9700-01	.1172	.1308	62.17	6.031	.4192	557.7	.1429-02	.1595-02
73	.88100	501.33	61.000	.7774-02	.9379-02	.1046-01	62.57	.4864	.4156	553.0	.1144-03	.1276-03

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OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

(RAGO16)

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TI DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
75	3.656	7.300	27.50	1.000	690.0	1318.	322.1	.1253	115.2	.9132-04	3840.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2157
75	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
75	.83500	437.62	1.0000	.3111-02	.3740-02	.4159-02	41.35	.1287	.4047	543.3	.7147-04	.7950-04
75	.83500	451.57	2.0000	.1517-02	.1824-02	.2029-02	41.28	.6261-01	.4057	544.7	.3485-04	.3877-04
75	.83500	463.35	3.0000	.1084-01	.1303-01	.1450-01	41.25	.4469	.4061	545.2	.2490-03	.2771-03
75	.83500	474.41	4.0000	.1863-01	.2241-01	.2493-01	41.24	.7686	.4062	545.3	.4282-03	.4765-03
75	.83500	485.17	5.0000	.3091-01	.3716-01	.4135-01	41.25	1.275	.4061	545.3	.7103-03	.7903-03
75	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
75	.83500	495.98	8.0000	.2646-01	.3180-01	.3537-01	41.37	1.095	.4044	543.0	.6078-03	.6760-03
75	.84300	434.29	9.0000	.1394-02	.1675-02	.1863-02	41.35	.5764-01	.4047	543.3	.3202-04	.3561-04
75	.84300	446.10	10.000	.4768-02	.5733-02	.6378-02	41.28	.1968	.4057	544.7	.1096-03	.1219-03
75	.84300	459.73	11.000	.4853-02	.5837-02	.6495-02	41.22	.2001	.4065	545.8	.1115-03	.1241-03
75	.84300	472.01	12.000	.1192-01	.1433-01	.1595-01	41.20	.4910	.4068	546.1	.2739-03	.3048-03
75	.84300	482.44	13.000	.1548-01	.1862-01	.2072-01	41.22	.6382	.4065	545.7	.3558-03	.3959-03
75	.84300	492.89	14.000	.1873-01	.2252-01	.2506-01	41.23	.7722	.4064	545.6	.4305-03	.4790-03
75	.84300	501.43	15.000	.3469-01	.4171-01	.4641-01	41.26	1.431	.4059	545.0	.7972-03	.8869-03
75	.84300	508.10	16.000	.5803-01	.6977-01	.7763-01	41.28	2.396	.4057	544.7	.1333-02	.1484-02
75	.84300	510.38	17.000	.3345-01	.4021-01	.4472-01	41.33	1.383	.4049	543.6	.7685-03	.8548-03
75	.84300	504.13	18.000	.2796-01	.3361-01	.3737-01	41.38	1.157	.4043	542.7	.6423-03	.7144-03
75	.84300	437.47	19.000	.2766-02	.3322-02	.3693-02	41.51	.1148	.4025	540.4	.6350-04	.7059-04
75	.85400	449.66	20.000	.7977-02	.9584-02	.1066-01	41.44	.3306	.4035	541.7	.1832-03	.2037-03
75	.85400	462.41	21.000	.2452-02	.2947-02	.3277-02	41.39	.1015	.4041	542.5	.5632-04	.6263-04
75	.85400	475.11	22.000	.9243-02	.1111-01	.1235-01	41.39	.3825	.4042	542.6	.2123-03	.2361-03
75	.85400	485.84	23.000	.1533-01	.1842-01	.2049-01	41.41	.6350	.4039	542.2	.3522-03	.3916-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, OMS POD

(RAG016)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
75	.85400	495.69	24.000	.2515-01	.3021-01	.3360-01	41.42	1.042	.4038	542.1	.5775-03	.6422-03
75	.85400	504.61	25.000	.3188-01	.3830-01	.4259-01	41.43	1.321	.4035	541.8	.7321-03	.8140-03
75	.85400	512.79	26.000	.4112-01	.4940-01	.5493-01	41.46	1.705	.4032	541.3	.9443-03	.1050-02
75	.85400	517.49	27.000	.2815-01	.3381-01	.3759-01	41.49	1.168	.4028	540.7	.6463-03	.7185-03
75	.85400	514.51	28.000	.2475-01	.2972-01	.3304-01	41.54	1.028	.4021	539.8	.5682-03	.6316-03
75	.85400	506.42	29.000	.2403-01	.2885-01	.3206-01	41.59	.9994	.4013	538.8	.5514-03	.6129-03
75	.86200	427.05	30.000	.8457-03	.1015-02	.1129-02	41.57	.3516-01	.4016	539.2	.1941-04	.2157-04
75	.86200	438.95	31.000	.2478-02	.2977-02	.3310-02	41.47	1.028	.4031	541.2	.5691-04	.6327-04
75	.86200	451.59	32.000	.4983-02	.5987-02	.6658-02	41.40	.2063	.4040	542.3	.1144-03	.1273-03
75	.86200	478.95	34.000	.1635-01	.1965-01	.2185-01	41.38	.6765	.4043	542.8	.3755-03	.4176-03
75	.86200	488.55	35.000	.1503-01	.1806-01	.2009-01	41.41	.6225	.4039	542.3	.3453-03	.3840-03
75	.86200	498.45	36.000	.2174-01	.2612-01	.2905-01	41.40	.9001	.4040	542.3	.4993-03	.5553-03
75	.86200	507.16	37.000	.2604-01	.3128-01	.3478-01	41.43	1.079	.4035	541.8	.5979-03	.6648-03
75	.86200	515.29	38.000	.2694-01	.3236-01	.3598-01	41.47	1.117	.4031	541.1	.6185-03	.6877-03
75	.86200	521.19	39.000	.2453-01	.2946-01	.3276-01	41.50	1.018	.4027	540.6	.5632-03	.6262-03
75	.86200	520.43	40.000	.1830-01	.2197-01	.2443-01	41.52	.7598	.4023	540.1	.4200-03	.4669-03
75	.86200	512.69	41.000	.2210-01	.2653-01	.2949-01	41.58	.9188	.4015	539.1	.5072-03	.5637-03
75	.87200	428.93	42.000	.9449-03	.1135-02	.1261-02	41.52	.3924-01	.4032	540.1	.2169-04	.2411-04
75	.87200	441.15	43.000	.2667-02	.3083-02	.3429-02	41.46	.1064	.4032	541.3	.5894-04	.6553-04
75	.87200	452.74	44.000	.5034-02	.6049-02	.6727-02	41.41	.2084	.4039	542.3	.1156-03	.1286-03
75	.87200	466.33	45.000	.2382-02	.2859-02	.3178-02	41.39	.9903-01	.4015	539.1	.5466-04	.6076-04
75	.87200	479.54	46.000	.1779-01	.2139-01	.2377-01	41.58	.7363	.4042	542.6	.4086-03	.4544-03
75	.87200	489.71	47.000	.1277-01	.1534-01	.1706-01	41.40	.3285	.4040	542.4	.2932-03	.3261-03
75	.87200	499.35	48.000	.1333-01	.1602-01	.1781-01	41.43	.5525	.4035	541.8	.3062-03	.3405-03
75	.87200	508.42	49.000	.1771-01	.2128-01	.2366-01	41.45	.7343	.4033	541.4	.4067-03	.4523-03
75	.87200	516.86	50.000	.1801-01	.2163-01	.2405-01	41.47	.7468	.4030	541.1	.4135-03	.4598-03
75	.87200	524.20	51.000	.1685-01	.2024-01	.2250-01	41.51	.6994	.4035	540.4	.3868-03	.4300-03
75	.87200	524.50	52.000	.1244-01	.1494-01	.1661-01	41.52	.5167	.4023	540.1	.2856-03	.3175-03
75	.87200	518.62	53.000	.1003-01	.1204-01	.1338-01	41.61	.4174	.4011	538.5	.2302-03	.2559-03
75	.87200	467.72	58.000	.1709-01	.2053-01	.2284-01	41.38	.7069	.4043	542.8	.3924-03	.4365-03
75	.88100	501.33	61.000	.4881-02	.5867-02	.6526-02	41.34	.2018	.4049	543.6	.1121-03	.1247-03

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(RAG017)

OMS POD (60-0)

OH110, MODEL 60-0, OMS POD

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
74	9.124	7.300	27.50	1.000	1674.	1296.	316.4	.3044	113.1	.2258-03	3805.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3355
74	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
74	.83500	437.62	1.0000	.1046-01	.1268-01	.1418-01	60.54	.6332	.4290	565.6	.1537-03	.1719-03
74	.83500	451.57	2.0000	.2313-02	.2806-02	.3140-02	60.43	.1398	.4300	567.0	.3400-04	.3805-04
74	.83500	463.35	3.0000	.4647-01	.5637-01	.6308-01	60.38	2.806	.4305	567.6	.6831-03	.7645-03
74	.83500	474.41	4.0000	.1053	.1277	.1429	60.38	6.357	.4304	567.6	.1547-02	.1732-02
74	.83500	485.17	5.0000	.9283-01	.1126	.1260	60.37	5.604	.4305	567.7	.1365-02	.1527-02
74	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
74	.83500	495.98	8.0000	.6228-01	.7548-01	.8443-01	60.61	3.774	.4284	564.9	.9148-03	.1023-02
74	.84300	434.29	9.0000	.6491-02	.7869-02	.8804-02	60.53	.3929	.4291	565.8	.9537-04	.1067-03
74	.84300	446.10	10.000	.2252-01	.2732-01	.3057-01	60.38	1.360	.4304	567.6	.3311-03	.3705-03
74	.84300	459.73	11.000	.2394-01	.2905-01	.3252-01	60.28	1.443	.4314	568.8	.3520-03	.3940-03
74	.84300	472.01	12.000	.4679-01	.5678-01	.6357-01	60.26	2.820	.4315	569.0	.6881-03	.7703-03
74	.84300	482.44	13.000	.7713-01	.9359-01	.1048	60.31	4.652	.4311	569.5	.1134-02	.1269-02
74	.84300	492.89	14.000	.8642-01	.1048	.1173	60.33	5.214	.4309	568.2	.1270-02	.1422-02
74	.84300	501.43	15.000	.7535-01	.9140-01	.1023	60.38	4.550	.4304	567.5	.1108-02	.1240-02
74	.84300	508.10	16.000	.4026-01	.4882-01	.5464-01	60.42	2.432	.4301	567.2	.5917-03	.6621-03
74	.84300	510.38	17.000	.5438-01	.6593-01	.7377-01	60.51	3.291	.4293	566.0	.7991-03	.8940-03
74	.84300	504.13	18.000	.5450-01	.6606-01	.7389-01	60.62	3.304	.4283	564.7	.8006-03	.8955-03
74	.85400	437.47	19.000	.9845-02	.1192-01	.1332-01	60.90	.5996	.4257	561.3	.1445-03	.1615-03
74	.85400	449.66	20.000	.2308-01	.2795-01	.3126-01	60.76	1.402	.4270	563.0	.3388-03	.3789-03
74	.85400	462.41	21.000	.2942-01	.3565-01	.3987-01	60.67	1.785	.4278	564.1	.4320-03	.4832-03
74	.85400	475.11	22.000	.4251-01	.5151-01	.5761-01	60.67	2.579	.4278	564.1	.6243-03	.6982-03
74	.85400	485.84	23.000	.6618-01	.8018-01	.8966-01	60.72	4.018	.4274	563.5	.9718-03	.1087-02

(RAG017)

OH110, MODEL 60-0, OMS POD

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
74	.85400	495.69	24.000	.6562-01	.7949-01	.8889-01	60.76	3.987	.4270	563.0	.9635-03	.1077-02
74	.85400	504.61	25.000	.5139-01	.6224-01	.6959-01	60.80	3.125	.4266	562.5	.7544-03	.8435-03
74	.85400	512.79	26.000	.3299-01	.3995-01	.4466-01	60.85	2.007	.4262	561.3	.4843-03	.5414-03
74	.85400	517.49	27.000	.2336-01	.2829-01	.3162-01	60.90	1.423	.4257	561.3	.3429-03	.3833-03
74	.85400	514.51	28.000	.3430-01	.4151-01	.4640-01	61.00	2.092	.4248	560.1	.5032-03	.5624-03
74	.85400	506.42	29.000	.3914-01	.4737-01	.5292-01	61.10	2.392	.4239	558.9	.5742-03	.6416-03
74	.86200	427.05	30.000	.3247-02	.3931-02	.4393-02	61.00	1.981	.4248	560.1	.4765-04	.5325-04
74	.86200	438.95	31.000	.9685-02	.1173-01	.1311-01	60.83	.5892	.4263	562.1	.1422-03	.1589-03
74	.86200	451.59	32.000	.2829-01	.3428-01	.3834-01	60.68	1.717	.4277	563.9	.4155-03	.4647-03
74	.86200	478.95	34.000	.4533-01	.5492-01	.6141-01	60.71	2.752	.4274	563.6	.6656-03	.7444-03
74	.86200	488.55	35.000	.5131-01	.6216-01	.6951-01	60.74	3.116	.4272	563.3	.7534-03	.8425-03
74	.86200	498.45	36.000	.4611-01	.5586-01	.6246-01	60.75	2.801	.4270	563.1	.6770-03	.7571-03
74	.86200	507.16	37.000	.3324-01	.4025-01	.4501-01	60.82	1.402	.4264	562.3	.4879-03	.5455-03
74	.86200	515.29	38.000	.2303-01	.2788-01	.3117-01	60.89	1.053	.4258	561.5	.3380-03	.3778-03
74	.86200	520.43	39.000	.1729-01	.2093-01	.2339-01	60.92	1.053	.4255	561.1	.2537-03	.2836-03
74	.86200	512.69	40.000	.1997-01	.2418-01	.2702-01	60.99	1.218	.4249	560.2	.2931-03	.3276-03
74	.87200	428.93	41.000	.3345-01	.4048-01	.4523-01	61.09	2.044	.4239	559.0	.4907-03	.5483-03
74	.87200	428.93	42.000	.5158-02	.6246-02	.6981-02	60.93	.3143	.4255	561.0	.7571-04	.8462-04
74	.87200	441.15	43.000	.1051-01	.1273-01	.1423-01	60.83	.6393	.4263	562.2	.1543-03	.1725-03
74	.87200	452.74	44.000	.2974-01	.3603-01	.4029-01	60.73	1.806	.4273	563.4	.4366-03	.4883-03
74	.87200	466.33	45.000	.1204-01	.1457-01	.1627-01	61.13	.7360	.4236	558.5	.1766-03	.1973-03
74	.87200	479.54	46.000	.4575-01	.5543-01	.6199-01	60.71	2.777	.4275	563.7	.6719-03	.7514-03
74	.87200	489.71	47.000	.3621-01	.4387-01	.4906-01	60.74	2.200	.4272	563.2	.5317-03	.5946-03
74	.87200	499.35	48.000	.3072-01	.3721-01	.4161-01	60.80	1.868	.4266	562.5	.4511-03	.5043-03
74	.87200	508.42	49.000	.2151-01	.2605-01	.2912-01	60.85	1.309	.4261	561.9	.3158-03	.3530-03
74	.87200	516.86	50.000	.1610-01	.1949-01	.2179-01	60.89	.9803	.4258	561.4	.2363-03	.2641-03
74	.87200	524.20	51.000	.1139-01	.1379-01	.1542-01	60.94	.6943	.4253	560.8	.1672-03	.1869-03
74	.87200	524.50	52.000	.1281-01	.1551-01	.1733-01	61.00	.7815	.4248	560.2	.1880-03	.2101-03
74	.87200	518.62	53.000	.1270-01	.1536-01	.1716-01	61.20	.7773	.4230	557.7	.1863-03	.2081-03
74	.88100	467.72	58.000	.6909-01	.8371-01	.9362-01	60.70	4.193	.4276	563.8	.1015-02	.1135-02
74	.88100	501.33	61.000	.9633-02	.1167-01	.1306-01	60.63	.5841	.4281	564.5	.1415-03	.1583-03

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OH110, MODEL 60-0, OMS POD

(RAG018)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
71	3.670	7.300	27.50	2.000	690.2	1315.	321.4	.1254	114.9	.9157-04	3835.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2156
71	.0000	

TEST DATA

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
71	.83500	437.62	1.0000	.2510-02	.3020-02	.3362-02	41.02	.1030	.4079	546.3	.5763-04	.6415-04
71	.83500	451.57	2.0000	-.1240-02	-.1492-02	-.1661-02	40.97	-.5080-01	.4086	547.3	-.2847-04	-.3170-04
71	.83500	463.35	3.0000	.6920-02	.8329-02	.9273-02	40.95	.2834	.4089	547.7	.1589-03	.1769-03
71	.83500	474.41	4.0000	.1336-01	.1608-01	.1790-01	40.95	.5472	.4089	547.7	.3068-03	.3416-03
71	.83500	485.17	5.0000	.1340-01	.1613-01	.1795-01	40.95	.5488	.4089	547.7	.3077-03	.3426-03
71	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
71	.83500	495.98	8.0000	.3533-01	.4250-01	.4730-01	41.05	1.450	.4075	545.8	.8109-03	.9025-03
71	.84300	434.29	9.0000	.1214-02	.1461-02	.1626-02	41.02	.4981-01	.4079	546.4	.2788-04	.3103-04
71	.84300	446.10	10.000	.2870-02	.3454-02	.3845-02	40.97	.1176	.4086	547.3	.6590-04	.7336-04
71	.84300	459.73	11.000	.2571-02	.3095-02	.3446-02	40.92	.1052	.4094	548.4	.5905-04	.6575-04
71	.84300	472.01	12.000	.7564-02	.9106-02	.1014-01	40.91	.3095	.4094	548.4	.1737-03	.1934-03
71	.84300	482.44	13.000	.7273-02	.8755-02	.9748-02	40.93	.2976	.4093	548.2	.1670-03	.1860-03
71	.84300	492.89	14.000	.8004-02	.9634-02	.1073-01	40.94	.3277	.4090	547.8	.1838-03	.2046-03
71	.84300	501.43	15.000	.9964-02	.1199-01	.1335-01	40.97	.4083	.4086	547.3	.2288-03	.2547-03
71	.84300	508.10	16.000	.2350-01	.2828-01	.3148-01	40.99	.9630	.4084	547.1	.5395-03	.6006-03
71	.84300	510.38	17.000	.4045-01	.4868-01	.5419-01	41.00	1.659	.4082	546.8	.9288-03	.1034-02
71	.84300	504.13	18.000	.3064-01	.3686-01	.4102-01	41.07	1.259	.4072	545.4	.7033-03	.7827-03
71	.85400	437.47	19.000	.1553-02	.1867-02	.2078-02	41.10	.6381-01	.4069	545.0	.3563-04	.3965-04
71	.85400	449.66	20.000	.5309-02	.6387-02	.7109-02	41.04	.2179	.4077	546.0	.1219-03	.1356-03
71	.85400	462.41	21.000	.2403-02	.2891-02	.3218-02	41.01	.9853-01	.4081	546.7	.5516-04	.6141-04
71	.85400	475.11	22.000	.4495-02	.5409-02	.6021-02	41.00	.1843	.4082	546.8	.1032-03	.1149-03
71	.85400	485.84	23.000	.6778-02	.8156-02	.9078-02	41.03	.2781	.4078	546.3	.1556-03	.1732-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, OHS POD

(RAGO18)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
71	.85400	495.69	24.000	.8093-02	.9737-02	.1084-01	41.04	3321	.4077	546.1	.1858-03	.2068-03
71	.85400	504.61	25.000	.1169-01	.1407-01	.1566-01	41.06	4801	.4074	545.7	.2684-03	.2987-03
71	.85400	512.79	26.000	.1424-01	.1713-01	.1906-01	41.08	5848	.4071	545.3	.3267-03	.3636-03
71	.85400	517.49	27.000	.2075-01	.2495-01	.2777-01	41.10	8527	.4068	544.9	.4761-03	.5298-03
71	.85400	514.51	28.000	.2729-01	.3281-01	.3651-01	41.15	1123	.4061	544.0	.6261-03	.6966-03
71	.85400	506.42	29.000	.2302-01	.2648-01	.2946-01	41.19	9071	.4056	543.3	.5053-03	.5621-03
71	.86200	427.05	30.000	.7244-03	.8711-03	.9692-03	41.15	2980-01	.4062	544.1	.1662-04	.1849-04
71	.86200	438.95	31.000	.1653-02	.1988-02	.2213-02	41.07	6788-01	.4073	545.6	.3794-04	.4222-04
71	.86200	451.59	32.000	.3111-02	.3744-02	.4167-02	41.01	1276	.4080	546.5	.7143-04	.7951-04
71	.86200	478.95	34.000	.7490-02	.9012-02	1.003-01	41.01	3071	.4082	546.7	.1720-03	.1914-03
71	.86200	488.55	35.000	.6932-02	.8341-02	.9284-02	41.04	2845	.4077	546.1	.1591-03	.1771-03
71	.86200	498.45	36.000	.6935-02	.8344-02	.9287-02	41.03	2845	.4078	546.3	.1592-03	.1772-03
71	.86200	507.16	37.000	.9983-02	1.201-01	1.337-01	41.05	4099	.4075	545.8	.2292-03	.2550-03
71	.86200	515.29	38.000	.1186-01	.1426-01	.1587-01	41.09	4872	.4069	545.1	.2721-03	.3028-03
71	.86200	521.19	39.000	.1406-01	.1691-01	.1882-01	41.11	5782	.4067	544.7	.3227-03	.3591-03
71	.86200	520.43	40.000	.1974-01	.2373-01	.2641-01	41.13	8118	.4064	544.3	.4529-03	.5039-03
71	.86200	512.69	41.000	.1947-01	.2341-01	.2604-01	41.11	8018	.4057	543.4	.4467-03	.4970-03
71	.87200	428.93	42.000	.6288-03	.7563-03	.8415-03	41.11	2585-01	.4067	544.7	.1443-04	.1606-04
71	.87200	441.15	43.000	.1633-02	.1964-02	.2186-02	41.06	6704-01	.4074	545.6	.3747-04	.4171-04
71	.87200	452.74	44.000	.3304-02	.3976-02	.4425-02	41.02	1355	.4079	546.4	.7585-04	.8443-04
71	.87200	466.33	45.000	.2300-02	.2837-02	.3156-02	41.18	9716-01	.4058	543.5	.5414-04	.6023-04
71	.87200	479.54	46.000	.8687-02	1.045-01	1.164-01	41.01	3563	.4081	546.6	.1994-03	.2220-03
71	.87200	489.71	47.000	.6640-02	.7990-02	.8894-02	41.02	2724	.4079	545.4	.1524-03	.1697-03
71	.87200	499.35	48.000	.4011-02	.4826-02	.5371-02	41.05	1647	.4075	545.8	.9208-04	.1025-03
71	.87200	508.42	49.000	.5473-02	.6583-02	.7327-02	41.08	2248	.4072	545.4	.1256-03	.1398-03
71	.87200	516.86	50.000	.8211-02	.9877-02	1.099-01	41.09	3374	.4070	545.1	.1885-03	.2097-03
71	.87200	524.20	51.000	.9247-02	1.112-01	1.238-01	41.12	3802	.4066	544.6	.2122-03	.2361-03
71	.87200	524.50	52.000	.1192-01	.1434-01	.1595-01	41.13	4904	.4064	544.3	.2736-03	.3044-03
71	.87200	518.62	53.000	.9671-02	1.163-01	1.293-01	41.20	3985	.4054	543.0	.2219-03	.2468-03
71	.88100	467.72	58.000	.9636-02	1.159-01	1.291-01	41.00	3951	.4082	546.8	.2212-03	.2463-03
71	.88100	501.33	61.000	.2931-02	.3526-02	.3924-02	41.06	1203	.4074	545.7	.6728-04	.7488-04

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OH110, MODEL 60-0, OMS POD

(RAG019)

OMS POD (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
70	9.000	7.300	27.50	2.000	1674.	1306.	319.1	.3042	114.1	.2238-03	3822.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
70	.0000	.3357										

TEST DATA

RUN NUMBER	XB/LB	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
70	.83500	437.62	1.0000	.7688-02	.9300-02	.1039-01	61.75	.4747	.4230	562.6	.1133-03	.1266-03
70	.83500	451.57	2.0000	.1573-02	.1904-02	.2127-02	61.59	.9687-01	.4245	564.6	.2320-04	.2593-04
70	.83500	463.35	3.0000	.1585-01	.1919-01	.2145-01	61.50	.9751	.4252	565.6	.2339-03	.2614-03
70	.83500	474.41	4.0000	.4953-01	.5996-01	.6701-01	61.51	3.046	.4252	565.5	.7307-03	.8167-03
70	.83500	485.17	5.0000	.8103-01	.9810-01	.1097	61.50	4.983	.4253	565.7	.1196-02	.1336-02
70	.83500	497.18	7.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
70	.83500	495.98	8.0000	.5849-01	.7074-01	.7902-01	61.78	3.613	.4228	562.3	.8622-03	.9631-03
70	.84300	434.29	9.0000	.5446-02	.6588-02	.7360-02	61.72	.3361	.4232	562.9	.8030-04	.8970-04
70	.84300	446.10	10.000	.1615-01	.1954-01	.2184-01	61.54	.9937	.4219	565.1	.2382-03	.2662-03
70	.84300	459.73	11.000	.1708-01	.2069-01	.2313-01	61.42	1.049	.4260	566.6	.2521-03	.2819-03
70	.84300	472.01	12.000	.2580-01	.3125-01	.3493-01	61.39	1.584	.4263	566.9	.3808-03	.4257-03
70	.84300	482.44	13.000	.3527-01	.4271-01	.4774-01	61.43	2.167	.4259	566.4	.5205-03	.5818-03
70	.84300	492.89	14.000	.4632-01	.5609-01	.6270-01	61.46	2.847	.4256	566.1	.6835-03	.7641-03
70	.84300	501.43	15.000	.7036-01	.8517-01	.9519-01	61.52	4.328	.4251	565.4	.1038-02	.1160-02
70	.84300	508.10	16.000	.5160-01	.6245-01	.6980-01	61.56	3.176	.4247	564.9	.7611-03	.8506-03
70	.84300	510.38	17.000	.5100-01	.6171-01	.6894-01	61.69	3.146	.4235	563.3	.7520-03	.8402-03
70	.84300	504.13	18.000	.5009-01	.6058-01	.6766-01	61.80	3.095	.4226	562.0	.7383-03	.8247-03
70	.85400	437.47	19.000	.7826-02	.9461-02	.1056-01	61.94	.4847	.4213	560.4	.1153-03	.1288-03
70	.85400	449.66	20.000	.1669-01	.2019-01	.2555-01	61.77	1.031	.4228	562.3	.2461-03	.2749-03
70	.85400	462.41	21.000	.1911-01	.2312-01	.2883-01	61.71	1.179	.4234	563.2	.2818-03	.3148-03
70	.85400	475.11	22.000	.2355-01	.2849-01	.3182-01	61.72	1.453	.4233	563.0	.3472-03	.3879-03
70	.86400	465.84	23.000	.3333-01	.4031-01	.4503-01	61.78	2.059	.4227	562.2	.4913-03	.5488-03

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OH110, MODEL 60-O, OMS POD

(RAG019)

RUN NUMBER	XB/LB	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HK/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
70	.85400	495.69	24.000	.4154-01	.5025-01	.5613-01	61.74	2.565	.4231	562.7	.6124-03	.6841-03
70	.85400	504.61	25.000	.4382-01	.5300-01	.5920-01	61.78	2.707	.4227	562.2	.6459-03	.7215-03
70	.85400	512.79	26.000	.3936-01	.4759-01	.5316-01	61.84	2.434	.4222	561.5	.5801-03	.6479-03
70	.85400	517.49	27.000	.2218-01	.2681-01	.2994-01	61.92	1.373	.4215	560.6	.3268-03	.3650-03
70	.85400	514.51	28.000	.3120-01	.3771-01	.4210-01	62.02	1.935	.4206	559.4	.4597-03	.5132-03
70	.85400	506.42	29.000	.3513-01	.4243-01	.4736-01	62.15	2.183	.4194	557.8	.5173-03	.5774-03
70	.86200	427.05	30.000	.2887-02	.3488-02	.3994-02	62.08	1.792	.4200	558.6	.4252-04	.4746-04
70	.86200	438.95	31.000	.7353-02	.8892-02	.9931-02	61.86	1.459	.4220	561.3	.1084-03	.1210-03
70	.86200	451.59	32.000	.1729-01	.2091-01	.2337-01	61.69	1.066	.4235	563.3	.2549-03	.2848-03
70	.86200	478.95	34.000	.2985-01	.3611-01	.4034-01	61.71	1.842	.4234	563.1	.4401-03	.4917-03
70	.86200	488.55	35.000	.2883-01	.3487-01	.3996-01	61.75	1.780	.4230	562.6	.4250-03	.4748-03
70	.86200	498.45	36.000	.3210-01	.3883-01	.4337-01	61.76	1.983	.4229	562.5	.4733-03	.5287-03
70	.86200	507.16	37.000	.3001-01	.3629-01	.4053-01	61.83	1.855	.4223	561.7	.4423-03	.4940-03
70	.86200	515.29	38.000	.2445-01	.2956-01	.3301-01	61.92	1.514	.4215	560.6	.3604-03	.4024-03
70	.86200	521.19	39.000	.1613-01	.1950-01	.2178-01	61.97	.9999	.4210	560.0	.2377-03	.2654-03
70	.86200	520.43	40.000	.1691-01	.2043-01	.2281-01	62.03	1.049	.4205	559.3	.2491-03	.2781-03
70	.86200	512.69	41.000	.2843-01	.3434-01	.3833-01	62.16	1.767	.4193	557.7	.4186-03	.4672-03
70	.87200	428.93	42.000	.3658-02	.4421-02	.4936-02	62.02	2.268	.4206	559.4	.5389-04	.6016-04
70	.87200	441.15	43.000	.7103-02	.8589-02	.9592-02	61.88	1.436	.4218	561.0	.1047-03	.1169-03
70	.87200	452.74	44.000	.1848-01	.2235-01	.2497-01	61.76	1.141	.4229	562.4	.2724-03	.3043-03
70	.87200	466.33	45.000	.7257-02	.8763-02	.9777-02	62.28	1.4520	.4182	556.2	.1068-03	.1192-03
70	.87200	479.54	46.000	.3341-01	.4042-01	.4515-01	61.75	2.063	.4230	562.6	.4926-03	.5503-03
70	.87200	489.71	47.000	.2181-01	.2601-01	.2906-01	61.78	1.329	.4227	562.2	.3171-03	.3542-03
70	.87200	499.35	48.000	.2100-01	.2539-01	.2836-01	61.84	1.299	.4221	561.5	.3095-03	.3457-03
70	.87200	508.42	49.000	.1868-01	.2258-01	.2522-01	61.92	1.157	.4215	560.6	.2753-03	.3074-03
70	.87200	516.86	50.000	.1608-01	.1943-01	.2170-01	61.95	.9959	.4212	560.2	.2369-03	.2645-03
70	.87200	524.20	51.000	.9815-02	.1186-01	.1324-01	62.03	.6089	.4204	559.2	.1446-03	.1614-03
70	.87200	524.50	52.000	.9678-02	.1169-01	.1305-01	62.10	.6010	.4199	558.5	.1426-03	.1591-03
70	.87200	518.62	53.000	.9354-02	.1129-01	.1260-01	62.29	.5827	.4181	556.1	.1377-03	.1536-03
70	.88100	467.72	58.000	.4958-01	.5998-01	.6701-01	61.69	3.058	.4235	563.3	.7310-03	.8167-03
70	.88100	501.33	61.000	.8011-02	.9689-02	.1082-01	61.81	.4952	.4225	561.9	.1181-03	.1319-03

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WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
30	3.742	5.280	20.00	.0000	308.9	1323.	323.6	.4162	205.1	.1703-03	3706.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2843
30	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
30	.00000	177.00	.10597	.1273	.1415	54.93	5.821	.4027	543.1	.1782-02	.1981-02
30	1.0000	191.00	.37241-01	.4472-01	.4971-01	54.99	2.048	.4022	542.3	.6260-03	.6959-03
30	1.0000	192.00	.17621	.2117	.2353	54.91	9.675	.4030	543.4	.2963-02	.3294-02
30	1.0000	193.00	.17762	.2134	.2372	54.92	9.755	.4029	543.3	.2987-02	.3321-02
30	1.0000	194.00	.49684-01	.5967-01	.6633-01	54.98	2.731	.4023	542.4	.8352-03	.9285-03
30	2.0000	195.00	.51511-01	.6185-01	.6876-01	55.00	2.833	.4020	542.1	.8659-03	.9625-03
30	2.0000	197.00	.16913	.2031	.2259	54.93	9.291	.4027	543.1	.2844-02	.3162-02
30	2.0000	198.00	.12918	.1551	.1725	54.96	7.100	.4024	542.6	.2172-02	.2414-02
30	2.0000	199.00	.11241	.1350	.1501	55.00	6.182	.4021	542.2	.1890-02	.2101-02
30	2.0000	200.00	.23412-01	.2811-01	.3125-01	55.03	1.288	.4018	541.8	.3935-03	.4374-03
30	3.0000	201.00	.47346-01	.5685-01	.6318-01	55.05	2.606	.4016	541.5	.7958-03	.8845-03

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WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

(RAGC01)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
32	3.680	5.280	22.50	.0000	312.1	1346.	329.4	.4199	208.7	.1688-03	3739.	.1750-01
32	.0000	HS SPHERE TW=540 .2861										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
32	.00000	177.00	.89573-01	.1078	.1199	55.01	5.023	.4051	556.1	.1518-02	.1688-02
32	1.0000	191.00	.35520-01	.4270-01	.4750-01	56.00	1.989	.4053	556.3	.6011-03	.6687-03
32	1.0000	192.00	.14508	.1745	.1941	55.91	8.111	.4062	557.6	.2456-02	.2733-02
32	1.0000	193.00	.14364	.1727	.1922	55.91	8.031	.4062	557.6	.2432-02	.2705-02
32	1.0000	194.00	.40298-01	.4845-01	.5389-01	55.99	2.256	.4054	556.5	.6820-03	.7587-03
32	2.0000	196.00	.41248-01	.4958-01	.5515-01	56.04	2.312	.4049	555.8	.6980-03	.7764-03
32	2.0000	197.00	.15278	.1837	.2044	55.94	8.547	.4059	557.1	.2586-02	.2877-02
32	2.0000	198.00	.98813-01	.1188	.1321	56.01	5.534	.4052	556.2	.1672-02	.1860-02
32	2.0000	199.00	.99940-01	.1201	.1336	56.06	5.602	.4047	555.5	.1691-02	.1881-02
32	2.0000	200.00	.17994-01	.2162-01	.2405-01	56.09	1.009	.4043	555.0	.3045-03	.3386-03
32	3.0000	201.00	.30540-01	.3670-01	.4081-01	56.14	1.715	.4039	554.4	.5166-03	.5745-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
34	3.805	5.280	25.00	.0000	303.2	1294.	316.1	.4092	200.3	.1714-03	3663.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2812
34	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
34	.0000	177.00	.83511-01	.1011	.1130	51.02	4.261	.4255	560.4	.1406-02	.1572-02
34	1.0000	191.00	.38744-01	.4691-01	.5243-01	51.04	1.977	.4253	560.2	.6525-03	.7293-03
34	1.0000	192.00	.12755	.1545	.1727	50.97	6.501	.4260	561.2	.2148-02	.2402-02
34	1.0000	193.00	.98022-01	.1187	.1327	50.99	4.999	.4258	560.8	.1651-02	.1845-02
34	1.0000	194.00	.24697-01	.2990-01	.3342-01	51.04	1.260	.4253	560.2	.4159-03	.4649-03
34	2.0000	196.00	.27836-01	.3370-01	.3766-01	51.05	1.421	.4252	560.0	.4687-03	.5239-03
34	2.0000	197.00	.14438	.1748	.1954	51.00	7.363	.4257	560.8	.2432-02	.2718-02
34	2.0000	198.00	.76465-01	.9257-01	.1035	51.03	3.902	.4254	560.3	.1288-02	.1439-02
34	2.0000	199.00	.85782-01	.1038	.1161	51.06	4.380	.4251	559.9	.1444-02	.1614-02
34	2.0000	200.00	.19169-01	.2320-01	.2593-01	51.07	.9790	.4249	559.7	.3228-03	.3607-03
34	3.0000	201.00	.29048-01	.3516-01	.3929-01	51.09	1.484	.4247	559.4	.4891-03	.5466-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC01)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
36	3.930	5.280	27.50	.0000	312.5	1293.	315.7	.4218	200.1	.1769-03	3660.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2855										
36	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
36	.00000	177.00	.92121-01	.1113	.1243	52.22	4.811	.4202	552.7	.1524-02	.1702-02
36	1.0000	191.00	.49239-01	.5949-01	.6641-01	52.25	2.573	.4198	552.3	.8147-03	.9094-03
36	1.0000	192.00	.13143	.1588	.1773	52.20	6.860	.4204	553.1	.2175-02	.2428-02
36	1.0000	193.00	.64411-01	.7785-01	.8691-01	52.19	3.361	.4205	553.2	.1066-02	.1190-02
36	1.0000	194.00	.13771-01	.1664-01	.1858-01	52.23	.7192	.4201	552.7	.2279-03	.2544-03
36	2.0000	196.00	.10751-01	.1299-01	.1450-01	52.24	.5616	.4200	552.5	.1779-03	.1986-03
36	2.0000	197.00	.81204-01	.9813-01	.1096	52.20	4.239	.4204	553.0	.1344-02	.1500-02
36	2.0000	198.00	.30424-01	.3677-01	.4104-01	52.21	1.588	.4203	552.9	.5035-03	.5621-03
36	2.0000	199.00	.44211-01	.5342-01	.5963-01	52.25	2.310	.4199	552.4	.7316-03	.8166-03
36	2.0000	200.00	.20958-01	.2532-01	.2827-01	52.24	1.095	.4200	552.5	.3468-03	.3871-03
36	3.0000	201.00	.25451-01	.3075-01	.3432-01	52.27	1.330	.4197	552.1	.4211-03	.4700-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC01)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
38	3.803	5.280	30.00	.0000	308.5	1309.	319.8	.4160	202.7	.1722-03	3685.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
38	.0000	.2839

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
38	.00000	177.00	.10143	.1228	.1372	52.14	5.288	.4251	566.6	.1706-02	.1906-02
38	1.0000	191.00	.58079-01	.7030-01	.7857-01	52.17	3.030	.4248	566.2	.9765-03	.1091-02
38	1.0000	192.00	.14415	.1745	.1951	52.11	7.511	.4254	567.0	.2424-02	.2710-02
38	1.0000	193.00	.64823-01	.7848-01	.8772-01	52.11	3.378	.4254	567.0	.1090-02	.1218-02
38	1.0000	194.00	.17234-01	.2066-01	.2332-01	52.16	.8989	.4249	566.4	.2898-03	.3239-03
38	2.0000	196.00	.13292-01	.1609-01	.1798-01	52.17	.6934	.4253	566.2	.2235-03	.2498-03
38	2.0000	197.00	.61440-01	.7438-01	.8314-01	52.12	3.202	.4251	566.9	.1033-02	.1155-02
38	2.0000	198.00	.30390-01	.3679-01	.4112-01	52.14	1.585	.4251	566.6	.5110-03	.5711-03
38	2.0000	199.00	.36263-01	.4389-01	.4906-01	52.17	1.892	.4248	566.2	.6097-03	.6814-03
38	2.0000	200.00	.12412-01	.1502-01	.1679-01	52.17	.6475	.4247	566.2	.2087-03	.2332-03
38	3.0000	201.00	.19571-01	.2369-01	.2647-01	52.20	1.022	.4244	565.7	.3290-03	.3677-03

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OH110 (ARC3.5HHT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC01)

WINDOWS (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
40	3.848	5.280	32.50	.0000	308.5	1299.	317.3	.4161	201.1	.1736-03	3670.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
40	.0000	.2837										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
40	.00000	177.00	.10661	.1289	.1440	51.93	5.537	.4226	558.8	.1783-02	.1991-02
40	1.0000	191.00	.64222-01	.7767-01	.8676-01	51.94	3.336	.4226	558.8	.1074-02	.1200-02
40	1.0000	192.00	.12333	.1492	.1666	51.90	6.401	.4229	559.3	.2063-02	.2304-02
40	1.0000	193.00	.55545-01	.6719-01	.7506-01	51.89	2.882	.4231	559.4	.9290-03	.1038-02
40	1.0000	194.00	.22495-01	.2721-01	.3039-01	51.91	1.168	.4229	559.2	.3762-03	.4202-03
40	2.0000	196.00	.18623-01	.2253-01	.2516-01	51.91	.9667	.4229	559.2	.3115-03	.3479-03
40	2.0000	197.00	.43265-01	.5233-01	.5845-01	51.92	2.246	.4227	559.0	.7235-03	.8082-03
40	2.0000	198.00	.28471-01	.3444-01	.3846-01	51.93	1.478	.4227	558.9	.4761-03	.5318-03
40	2.0000	199.00	.39436-01	.4769-01	.5326-01	51.97	2.050	.4222	558.3	.6594-03	.7365-03
40	2.0000	200.00	.98290-02	.1189-01	.1328-01	51.92	.5103	.4228	559.1	.1644-03	.1836-03
40	3.0000	201.00	.16294-01	.1970-01	.2200-01	52.00	.8474	.4218	557.8	.2724-03	.3042-03

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WINDOWS (60-0)

OH110 (ARC3.5HAT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0
OH110, MODEL 60-0, ORBITER WINDOWS

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(RAGC01)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
42	3.817	5.280	34.10	.0000	307.3	1303.	3.8.2	.4144	201.7	.1724-03	3675.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TH=540 .2832										
42	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H1	TW DEG. R	STN NO R=.90	STN NO R=.850
42	.00000	177.00	.10863	.1312	.1464	52.32	5.684	.4191	555.8	.1821-02	.2033-02
42	1.0000	191.00	.63996-01	.7730-01	.8626-01	52.34	3.350	.4188	555.4	.1073-02	.1197-02
42	1.0000	192.00	.10688	.1291	.1441	52.29	5.589	.4194	556.2	.1792-02	.2000-02
42	1.0000	193.00	.50108-01	.6054-01	.6757-01	52.27	2.619	.4196	556.5	.8403-03	.9379-03
42	1.0000	194.00	.24309-01	.2937-01	.3277-01	52.30	1.271	.4193	556.1	.4076-03	.4549-03
42	2.0000	196.00	.19011-01	.2297-01	.2563-01	52.31	.9944	.4192	556.0	.3188-03	.3558-03
42	2.0000	197.00	.35230-01	.4256-01	.4750-01	52.29	1.842	.4194	556.2	.5908-03	.6594-03
42	2.0000	198.00	.25401-01	.3069-01	.3425-01	52.29	1.328	.4194	556.2	.4259-03	.4754-03
42	2.0000	199.00	.31830-01	.3845-01	.4291-01	52.32	1.665	.4191	555.8	.5337-03	.5956-03
42	2.0000	200.00	.11121-01	.1343-01	.1499-01	52.30	.5816	.4193	556.1	.1865-03	.2081-03
42	3.0000	201.00	.16202-01	.1967-01	.2184-01	52.34	.8480	.4188	555.5	.2716-03	.3031-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGC02)

WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
44	3.856	5.280	27.50	.0000	307.9	1296.	316.5	.4154	200.6	.1738-03	3665.	.1750-01
44	.0000	HS SPHERE TN=540 .2834										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
44	.00000	177.00	.93975-01	.1138	.1272	51.50	4.840	.4253	561.0	.1572-02	.1757-02
44	1.0000	191.00	.48689-01	.5894-01	.6587-01	51.53	2.509	.4250	560.6	.8143-03	.9101-03
44	1.0000	192.00	.13054	.1581	.1767	51.48	6.720	.4256	561.4	.2184-02	.2441-02
44	1.0000	193.00	.65023-01	.7872-01	.8800-01	51.49	3.348	.4254	561.2	.0888-02	.1216-02
44	1.0000	194.00	.14293-01	.1730-01	.1934-01	51.53	.7365	.4250	560.6	.2391-03	.2672-03
44	2.0000	196.00	.11058-01	.1339-01	.1496-01	51.53	.5698	.4250	560.6	.1849-03	.2067-03
44	2.0000	197.00	.82059-01	.9935-01	.1110	51.49	4.225	.4254	561.2	.1373-02	.1534-02
44	2.0000	198.00	.30539-01	.3697-01	.4132-01	51.53	1.574	.4250	560.6	.5108-03	.5708-03
44	2.0000	199.00	.44559-01	.5394-01	.6028-01	51.54	2.296	.4249	560.5	.7452-03	.8329-03
44	2.0000	200.00	.20535-01	.2486-01	.2778-01	51.54	1.058	.4249	560.4	.3434-03	.3838-03
44	3.0000	201.00	.24701-01	.2990-01	.3341-01	51.57	1.274	.4245	560.0	.4131-03	.4616-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0

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(RAGC03)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
31	4.942	5.280	20.00	.0000	407.7	1323.	323.4	.5493	205.0	.2249-03	3705.	.1750-01
31	PHI DEG.	HS SPHERE TH=540 .3266										
31	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QDOT BTU/ F12SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
31	.00000	177.00	.14468	.1737	.1931	9.138	.4020	541.9	.2116-02	.2353-02
31	1.0000	191.00	.48294-01	.5798-01	.6445-01	3.052	.4016	541.2	.7064-03	.7851-03
31	1.0000	192.00	.20101	.2414	.2684	12.69	.4024	542.3	.2941-02	.3269-02
31	1.0000	193.00	.20826	.2501	.2780	13.14	.4024	542.3	.3047-02	.3387-02
31	1.0000	194.00	.61613-01	.7397-01	.8221-01	3.895	.4014	541.0	.9011-03	.1002-02
31	2.0000	195.00	.63147-01	.7580-01	.8424-01	3.995	.4009	540.3	.9234-03	.1026-02
31	2.0000	197.00	.17555	.2108	.2343	11.09	.4020	541.8	.2568-02	.2855-02
31	2.0000	198.00	.15398	.1849	.2055	9.734	.4014	541.0	.2252-02	.2503-02
31	2.0000	199.00	.11922	.1431	.1590	7.544	.4009	540.3	.1743-02	.1937-02
31	2.0000	200.00	.30735-01	.3639-01	.4099-01	1.947	.4003	539.5	.4494-03	.4993-03
31	3.0000	201.00	.58117-01	.6974-01	.7748-01	3.684	.3999	538.9	.8496-03	.9440-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC03)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
33	5.078	5.280	22.50	.0000	408.1	1301.	317.9	.5505	201.5	.2293-03	3673.	.1750-01
33	PHI DEG.	HS SPHERE TW=540 .3264										
33	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HQ/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
33	.00000	177.00	.12047	.1453	.1620	60.64	7.306	.4153	550.2	.1750-02	.1951-02
33	1.0000	191.00	.47106-01	.5726-01	.6384-01	60.64	2.878	.4153	550.2	.6893-03	.7686-03
33	1.0000	192.00	.17280	.2085	.2325	60.56	10.47	.4160	551.2	.2510-02	.2799-02
33	1.0000	193.00	.18148	.2190	.2442	60.56	10.99	.4160	551.2	.2636-02	.2940-02
33	1.0000	194.00	.51055-01	.6159-01	.6867-01	60.64	3.096	.4153	550.2	.7414-03	.8267-03
33	2.0000	196.00	.51133-01	.6167-01	.6876-01	60.68	3.103	.4149	549.7	.7425-03	.8278-03
33	2.0000	197.00	.16245	.1960	.2185	60.60	9.844	.4157	550.7	.2359-02	.2631-02
33	2.0000	198.00	.12478	.1505	.1678	60.66	7.569	.4152	550.0	.1812-02	.2020-02
33	2.0000	199.00	.10889	.1313	.1464	60.71	6.611	.4146	549.3	.1581-02	.1763-02
33	2.0000	200.00	.22477-01	.2710-01	.3021-01	60.76	1.366	.4142	548.7	.3263-03	.3638-03
33	3.0000	201.00	.40160-01	.4842-01	.5396-01	60.82	2.443	.4136	548.0	.5829-03	.6497-03

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OH110 (ARC3.5HWT-253) OR31TER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC03)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
35	4.988	5.280	25.00	.0000	407.4	1315.	321.3	.5492	203.6	.2263-03	3693.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW-540										
35	.0000	.3264										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
35	.0000	177.00	.97008-01	.1165	.1295	62.64	6.077	.4026	539.1	.1414-02	.1572-02
35	1.0000	191.00	.44040-01	.5288-01	.5879-01	62.70	2.761	.4021	538.5	.6419-03	.7135-03
35	1.0000	192.00	.14539	.1746	.1942	62.61	9.103	.4029	539.6	.2119-02	.2357-02
35	1.0000	193.00	.13848	.1663	.1849	62.60	8.669	.4030	539.6	.2019-02	.2245-02
35	1.0000	194.00	.35566-01	.4271-01	.4748-01	62.69	2.229	.4022	538.6	.5184-03	.5763-03
35	2.0000	196.00	.37519-01	.4505-01	.5008-01	62.73	2.354	.4018	538.1	.5468-03	.6078-03
35	2.0000	197.00	.15440	.1854	.2062	62.65	9.673	.4026	539.1	.2251-02	.2502-02
35	2.0000	198.00	.90195-01	.1083	.1204	62.68	5.653	.4023	538.7	.1315-02	.1462-02
35	2.0000	199.00	.93088-01	.1118	.1242	62.74	5.840	.4018	538.0	.1357-02	.1508-02
35	2.0000	200.00	.21628-01	.2597-01	.2886-01	62.77	1.358	.4015	537.6	.3152-03	.3503-03
35	3.0000	201.00	.35591-01	.4272-01	.4748-01	62.81	2.236	.4010	537.0	.5186-03	.5763-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC03)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
37	5.101	5.280	27.50	.0000	406.9	1295.	316.3	.5490	200.5	.2298-03	3664.	.1750-01
37	PHI DEG.	HS SPHERE TW=540 .3258										
37	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
37	.00000	177.00	.10460	.1266	.1416	59.15	6.187	.4254	560.8	.1521-02	.1701-02
37	1.0000	191.00	.52925-01	.6407-01	.7161-01	59.19	3.133	.4250	560.3	.7697-03	.8603-03
37	1.0000	192.00	.14318	.1734	.1938	59.10	8.462	.4259	561.4	.2083-02	.2328-02
37	1.0000	193.00	.83167-01	.1007	.1126	59.10	4.915	.4259	561.3	.1210-02	.1352-02
37	1.0000	194.00	.17086-01	.2068-01	.2312-01	59.19	1.011	.4250	560.3	.2485-03	.2777-03
37	2.0000	196.00	.14527-01	.1758-01	.1965-01	59.23	.8604	.4247	559.8	.2112-03	.2361-03
37	2.0000	197.00	.10942	.1325	.1481	59.12	6.469	.4257	561.1	.1592-02	.1779-02
37	2.0000	198.00	.44914-01	.5437-01	.6077-01	59.18	2.658	.4251	560.3	.6532-03	.7301-03
37	2.0000	199.00	.58869-01	.7126-01	.7963-01	59.22	3.486	.4247	559.9	.8560-03	.9567-03
37	2.0000	200.00	.24780-01	.2999-01	.3351-01	59.27	1.469	.4243	559.2	.3603-03	.4026-03
37	3.0000	201.00	.34798-01	.4211-01	.4705-01	59.30	2.063	.4240	558.9	.5059-03	.5653-03

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OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC03)

WINDOWS (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
39	5.112	5.280	30.00	.0000	408.0	1296.	316.4	.5505	200.5	.2303-03	3665.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3262										
39	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
39	.00000	177.00	.10302	.1230	.1379	61.26	6.311	.4066	536.2	.1488-02	.1656-02
39	1.0000	191.00	.62331-01	.7494-01	.8339-01	61.35	3.824	.4057	535.0	.9003-03	.1002-02
39	1.0000	192.00	.13846	.1665	.1853	61.21	8.476	.4070	536.7	.2001-02	.2226-02
39	1.0000	193.00	.84151-01	.1012	.1126	61.27	5.156	.4065	536.0	.1216-02	.1353-02
39	1.0000	194.00	.20858-01	.2507-01	.2789-01	61.42	1.281	.4050	534.1	.3012-03	.3350-03
39	2.0000	196.00	.16549-01	.1989-01	.2212-01	61.49	1.018	.4044	533.3	.2389-03	.2658-03
39	2.0000	197.00	.82654-01	.9940-01	.1106	61.28	5.065	.4064	535.9	.1194-02	.1329-02
39	2.0000	198.00	.46910-01	.5639-01	.6273-01	61.42	2.881	.4051	534.2	.6774-03	.7536-03
39	2.0000	199.00	.48525-01	.5833-01	.6489-01	61.41	2.980	.4051	534.2	.7008-03	.7795-03
39	2.0000	200.00	.21888-01	.2629-01	.2923-01	61.65	1.349	.4029	531.3	.3159-03	.3512-03
39	3.0000	201.00	.30282-C1	.3638-01	.4046-01	61.56	1.864	.4037	532.4	.4371-03	.4861-03

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(RAGC03)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
41	4.957	5.280	32.50	.0000	407.4	1320.	322.6	.5489	204.4	.2253-03	3700.	.1750-01
41	PHI DEG.	HS SPHERE TW=540 .3264										
41	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
41	.0000	177.00	.11073	.1330	.1479	62.85	6.959	.4030	541.8	.1618-02	.1799-02
41	1.0000	191.00	.69501-01	.8348-01	.9281-01	62.88	4.370	.4027	541.1	.1016-02	.1129-02
41	1.0000	192.00	.12139	.1458	.1622	62.80	7.624	.4034	542.4	.1774-02	.1973-02
41	1.0000	193.00	.61864-01	.7433-01	.8266-01	62.78	3.884	.4037	542.7	.9043-03	.1006-02
41	1.0000	194.00	.26076-01	.3132-01	.3483-01	62.86	1.639	.4030	541.7	.3811-03	.4237-03
41	2.0000	196.00	.19888-01	.2389-01	.2656-01	62.90	1.251	.4025	541.2	.2906-03	.3231-03
41	2.0000	197.00	.50355-01	.6049-01	.6726-01	62.82	3.163	.4033	542.1	.7360-03	.8184-03
41	2.0000	198.00	.33792-01	.4059-01	.4513-01	62.86	2.124	.4029	541.6	.4939-03	.5491-03
41	2.0000	199.00	.43237-01	.5192-01	.5772-01	62.93	2.721	.4023	540.8	.6318-03	.7024-03
41	2.0000	200.00	.11460-01	.1376-01	.1530-01	62.95	.7214	.4021	540.6	.1674-03	.1861-03
41	3.0000	201.00	.17773-01	.2134-01	.2372-01	63.02	1.120	.4015	539.7	.2596-03	.2886-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
43	5.087	5.280	34.10	.0000	405.6	1295.	316.2	.5473	200.4	.2292-03	3664.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TK=540 .3253										
43	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	H4/H1	TW DEG. R	STN NO R=.90	STN NO R=.850
43	.00000	177.00	.11931	.1439	.1604	60.20	7.182	.4146	546.3	.1732-02	.1931-02
43	1.0000	191.00	.70906-01	.8550-01	.9531-01	60.24	4.271	.4142	545.8	.1029-02	.1147-02
43	1.0000	192.00	.10787	.1301	.1451	60.16	6.489	.4149	546.8	.1566-02	.1746-02
43	1.0000	193.00	.48040-01	.5794-01	.6460-01	60.15	2.890	.4150	546.9	.6975-03	.7777-03
43	1.0000	194.00	.28123-01	.3391-01	.3781-01	60.22	1.694	.4143	546.0	.4082-03	.4551-03
43	2.0000	196.00	.20418-01	.2462-01	.2744-01	60.26	1.230	.4140	545.5	.2964-03	.3303-03
43	2.0000	197.00	.38748-01	.4673-01	.5210-01	60.17	2.332	.4148	546.6	.5625-03	.6272-03
43	2.0000	198.00	.27327-01	.3295-01	.3673-01	60.23	1.646	.4143	546.0	.3967-03	.4422-03
43	2.0000	199.00	.33584-01	.4049-01	.4513-01	60.28	2.025	.4137	545.2	.4874-03	.5433-03
43	2.0000	200.00	.13872-01	.1672-01	.1864-01	60.31	.8366	.4135	545.0	.2013-03	.2244-03
43	3.0000	201.00	.19794-01	.2386-01	.2659-01	60.36	1.193	.4130	544.3	.2872-03	.3201-03

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WINDOWS (60-0)

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OH110, MODEL 60-0, ORBITER WINDOWS

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PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
60	3.681	7.300	20.00	.0000	690.9	1313.	321.0	.1255	114.7	.9179-04	3833.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2157
60	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
60	.00000	177.00	.45946-01	.5535-01	.6166-01	40.74	1.872	.4114	550.3	.1054-02	.1175-02
60	1.0000	191.00	.16872-01	.2032-01	.2284-01	40.75	.6876	.4112	550.0	.3872-03	.4313-03
60	1.0000	192.00	.83694-01	.1008	.1123	40.72	3.408	.4117	550.7	.1921-02	.2140-02
60	1.0000	193.00	.63397-01	.7637-01	.8508-01	40.74	2.583	.4114	550.4	.1455-02	.1621-02
60	1.0000	194.00	.19958-01	.2404-01	.2678-01	40.77	.8136	.4110	549.8	.4580-03	.5101-03
60	2.0000	196.00	.24000-01	.2891-01	.3220-01	40.77	.9786	.4109	549.7	.5507-03	.6134-03
60	2.0000	197.00	.98171-01	.1183	.1318	40.73	3.999	.4115	550.4	.2253-02	.2510-02
60	2.0000	198.00	.61167-01	.7368-01	.8207-01	40.76	2.493	.4111	549.9	.1404-02	.1564-02
60	2.0000	199.00	.67388-01	.8117-01	.9042-01	40.76	2.746	.4112	550.0	.1546-02	.1723-02
60	2.0000	200.00	.14748-01	.1776-01	.1978-01	40.80	.6017	.4105	549.1	.3384-03	.3769-03
60	3.0000	201.00	.22918-01	.2760-01	.3075-01	40.78	.9346	.4108	549.6	.5259-03	.5858-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC04)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
61	3.721	7.300	25.00	.0000	681.0	1305.	318.8	.1256	114.0	.9247-04	3820.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TH=540
61	.0000	.2157

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
61	.00000	177.00	.58637-01	.7105-01	.7946-01	39.31	2.305	.4275	568.1	.1347-02	.1506-02
61	1.0000	191.00	.26069-01	.3159-01	.3533-01	39.30	1.025	.4276	568.2	.5987-03	.6696-03
61	1.0000	192.00	.71194-01	.8627-01	.9649-01	39.29	2.797	.4278	568.4	.1635-02	.1829-02
61	1.0000	193.00	.31853-01	.3860-01	.4317-01	39.30	1.252	.4277	568.4	.7316-03	.8182-03
61	1.0000	194.00	.11094-01	.1344-01	.1503-01	39.30	.4360	.4277	568.3	.2548-03	.2850-03
61	2.0000	196.00	.10493-01	.1272-01	.1422-01	39.29	.4122	.4279	568.5	.2410-03	.2695-03
61	2.0000	197.00	.47029-01	.5699-01	.6374-01	39.30	1.848	.4277	568.3	.1080-02	.1208-02
61	2.0000	198.00	.22898-01	.2774-01	.3103-01	39.31	.9002	.4275	568.1	.5259-03	.5881-03
61	2.0000	199.00	.29614-01	.3588-01	.4013-01	39.32	1.164	.4274	567.9	.6801-03	.7605-03
61	2.0000	200.00	.84740-02	.1027-01	.1148-01	39.31	.3331	.4276	568.1	.1946-03	.2176-03
61	3.0000	201.00	.11802-01	.1430-01	.1599-01	39.34	.4643	.4272	567.6	.2710-03	.3031-03

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OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC04)

WINDOWS (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
62	3.640	7.300	27.50	.0000	691.7	1323.	323.6	.1256	115.7	.9112-04	3848.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540 .2160
62	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
62	.0000	177.00	.68591-01	.8220-01	.9125-01	42.23	2.896	.3959	533.9	.1574-02	.1747-02
62	1.0000	191.00	.35180-01	.4216-01	.4679-01	42.25	1.486	.3957	533.5	.8073-03	.8961-03
62	1.0000	192.00	.81188-01	.9730-01	1.080	42.21	3.427	.3962	534.3	.1863-02	.2069-02
62	1.0000	193.00	.26400-01	.3164-01	.3513-01	42.21	1.114	.3961	534.2	.6059-03	.6727-03
62	1.0000	194.00	.88553-02	.1061-01	.1178-01	42.24	.3740	.3958	533.7	.2032-03	.2256-03
62	2.0000	196.00	.63401-02	.7597-02	.8433-02	42.25	.2679	.3956	533.4	.1455-03	.1615-03
62	2.0000	197.00	.30674-01	.3676-01	.4081-01	42.22	1.295	.3960	534.0	.7040-03	.7815-03
62	2.0000	198.00	.13357-01	.1601-01	.1777-01	42.23	.5641	.3958	533.8	.3065-03	.3403-03
62	2.0000	199.00	.17575-01	.2106-01	.2338-01	42.24	.7424	.3957	533.6	.4033-03	.4477-03
62	2.0000	200.00	.12658-01	.1517-01	.1683-01	42.27	.5350	.3953	533.1	.2904-03	.3224-03
62	3.0000	201.00	.20322-01	.2435-01	.2703-01	42.26	.8588	.3955	533.3	.4663-03	.5176-03

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WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
63	3.740	7.300	30.00	.0000	692.3	1303.	318.2	.1258	113.8	.9284-04	3816.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
63	.0000	.2158										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	ODOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
63	.00000	177.00	.79107-01	.9539-01	.1063	40.21	3.181	.4143	549.4	.1806-02	.2013-02
63	1.0000	191.00	.43226-01	.5212-01	.5810-01	40.22	1.739	.4141	549.1	.9865-03	.1100-02
63	1.0000	192.00	.97216-01	.1172	.1307	40.19	3.907	.4146	549.8	.2219-02	.2474-02
63	1.0000	193.00	.21385-01	.2579-01	.2875-01	40.20	.8596	.4144	549.6	.4881-03	.5441-03
63	1.0000	194.00	.11698-01	.1411-01	.1572-01	40.22	.4705	.4142	549.2	.2670-03	.2976-03
63	2.0000	196.00	.79515-02	.9588-02	.1069-01	40.23	.3199	.4140	549.0	.1815-03	.2023-03
63	2.0000	197.00	.23254-01	.2804-01	.3126-01	40.20	.9348	.4144	549.5	.5308-03	.5917-03
63	2.0000	198.00	.11582-01	.1397-01	.1557-01	40.22	.4658	.4142	549.2	.2643-03	.2947-03
63	2.0000	199.00	.17053-01	.2056-01	.2292-01	40.22	.6859	.4141	549.1	.3892-03	.4338-03
63	2.0000	200.00	.38071-02	.4590-02	.5116-02	40.25	.1532	.4137	548.7	.8688-04	.9683-04
63	3.0000	201.00	.10072-01	.1214-01	.1354-01	40.24	.4053	.4139	548.8	.2299-03	.2562-03

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OH110, MODEL 60-0, ORBITER WINDOWS

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WINDOWS (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
67	8.624	7.300	20.00	.0000	1670.	1338.	327.4	.3029	117.0	.2172-03	3871.	.1750-01
67	PHI DEG.	HS SPHERE TW=540 .3358										
67	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
67	.00000	177.00	.82444-01	.9903-01	.1101	65.62	5.410	.4029	549.7	.1229-02	.1366-02
67	1.0000	191.00	.26790-01	.3217-01	.3576-01	65.71	1.760	.4021	548.7	.3993-03	.4439-03
67	1.0000	192.00	.15487	.1860	.2068	65.61	10.16	.4030	549.9	.2309-02	.2567-02
67	1.0000	193.00	.15021	.1804	.2006	65.60	9.854	.4031	550.0	.2239-02	.2490-02
67	1.0000	194.00	.34429-01	.4135-01	.4597-01	65.66	2.261	.4026	549.3	.5132-03	.5705-03
67	2.0000	196.00	.35643-01	.4280-01	.4758-01	65.70	2.342	.4022	548.8	.5312-03	.5906-03
67	2.0000	197.00	.14371	.1726	.1919	65.63	9.431	.4029	549.7	.2142-02	.2382-02
67	2.0000	198.00	.96828-01	.1163	.1293	65.69	6.361	.4023	548.9	.1443-02	.1604-02
67	2.0000	199.00	.90097-01	.1082	.1203	65.72	5.921	.4020	548.6	.1343-02	.1493-02
67	2.0000	200.00	.13883-01	.1667-01	.1853-01	65.77	.9131	.4016	547.9	.2069-03	.2299-03
67	3.0000	201.00	.29678-01	.3563-01	.3961-01	65.77	1.952	.4016	548.0	.4423-03	.4916-03

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(RAGC05)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
66	9.029	7.300	25.00	.0000	1667.	1301.	317.6	.3031	113.6	.2240-03	3813.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
66	.0000	.3349										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
66	.00000	177.00	.66897-01	.8102-01	.9057-01	60.97	4.079	.4262	564.2	.9865-03	.1103-02
66	1.0000	191.00	.37675-01	.4562-01	.5100-01	61.02	2.299	.4258	563.7	.5555-03	.6210-03
66	1.0000	192.00	.10972	.1329	.1486	60.94	6.687	.4265	564.6	.1618-02	.1809-02
66	1.0000	193.00	.64206-01	.7775-01	.8692-01	60.99	3.916	.4261	564.1	.9468-03	.1058-02
66	1.0000	194.00	.13178-01	.1555-01	.1783-01	61.07	.8048	.4253	563.0	.1943-03	.2172-03
66	2.0000	196.00	.14331-01	.1735-01	.1939-01	61.10	.8756	.4250	562.7	.2112-03	.2361-03
66	2.0000	197.00	.11498	.1392	.1557	60.98	7.012	.4261	564.1	.1695-02	.1895-02
66	2.0000	198.00	.52080-01	.6305-01	.7047-01	61.08	3.181	.4252	562.9	.7678-03	.8581-03
66	2.0000	199.00	.64141-01	.7766-01	.8680-01	61.06	3.916	.4254	563.2	.9456-03	.1057-02
66	2.0000	200.00	.14929-01	.1807-01	.2019-01	61.17	.9132	.4244	561.8	.2200-03	.2459-03
66	3.0000	201.00	.23281-01	.2818-01	.3150-01	61.12	1.423	.4249	562.4	.3432-03	.3635-03

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(RAGC05)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
65	9.048	7.300	27.50	.0000	1672.	1301.	317.9	.3040	113.6	.2245-03	3814.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
65	.0000	.3354										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
65	.0000	177.00	.78083-01	.9452-01	.1056	61.26	4.783	.4249	562.9	.1150-02	.1285-02
65	1.0000	191.00	.47678-01	.5771-01	.6443-01	61.29	2.922	.4246	562.5	.7019-03	.7844-03
65	1.0000	192.00	.12143	.1470	.1643	61.24	7.436	.4251	563.2	.1788-02	.1998-02
65	1.0000	193.00	.46235-01	.5597-01	.6255-01	61.26	2.832	.4249	562.9	.6807-03	.7608-03
65	1.0000	194.00	.10057-01	.1217-01	.1360-01	61.32	.6167	.4244	562.2	.1480-03	.1654-03
65	2.0000	196.00	.74012-02	.8956-02	.1001-01	61.35	.4540	.4241	561.8	.1089-03	.1217-03
65	2.0000	197.00	.55604-01	.6730-01	.7522-01	61.28	3.407	.4247	562.7	.8186-03	.9148-03
65	2.0000	198.00	.20568-01	.2489-01	.2781-01	61.35	1.262	.4241	561.8	.3027-03	.3383-03
65	2.0000	199.00	.27056-01	.3274-01	.3658-01	61.36	1.660	.4240	561.7	.3982-03	.4450-03
65	2.0000	200.00	.12259-01	.1483-01	.1657-01	61.42	.7530	.4234	561.0	.1804-03	.2016-03
65	3.0000	201.00	.15065-01	.1823-01	.2036-01	61.41	.9251	.4235	561.1	.2217-03	.2477-03

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OH110 (ARC3.54HT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC05)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
64	8.886	7.300	30.00	.0000	1678.	1318.	322.3	.3048	115.2	.2220-03	3840.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
64	.0000	.3363										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
64	.00000	177.00	.77653-01	.9343-01	.1040	64.15	4.981	.4079	547.8	.1145-02	.1275-02
64	1.0000	191.00	.50825-01	.6115-01	.6806-01	64.19	3.262	.4076	547.4	.7494-03	.8341-03
64	1.0000	192.00	.12928	.1556	.1732	64.12	8.290	.4081	548.1	.1907-02	.2122-02
64	1.0000	193.00	.41773-01	.5026-01	.5595-01	64.13	2.679	.4080	548.0	.6161-03	.6858-03
64	1.0000	194.00	.12072-01	.1452-01	.1616-01	64.19	.7749	.4075	547.3	.1780-03	.1981-03
64	2.0000	196.00	.92418-02	.1112-01	.1237-01	64.21	.5934	.4073	547.0	.1363-03	.1517-03
64	2.0000	197.00	.40211-01	.4838-01	.5385-01	64.15	2.580	.4079	547.8	.5930-03	.6600-03
64	2.0000	198.00	.19790-01	.2381-01	.2650-01	64.21	1.271	.4073	547.1	.2918-03	.3248-03
64	2.0000	199.00	.26258-01	.3159-01	.3516-01	64.22	1.686	.4073	547.0	.3872-03	.4309-03
64	2.0000	200.00	.62950-02	.7572-02	.8426-02	64.26	.4045	.4069	546.4	.9281-04	.1033-03
64	3.0000	201.00	.12293-01	.1479-01	.1645-01	64.26	.7899	.4069	546.5	.1812-03	.2017-03

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WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
47	3.778	5.280	20.00	.0000	308.4	1314.	321.2	.4157	203.6	.1714-03	3692.	.1750-01
47		HS SPHERE TW=540 .2839										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H4/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
47	.00000	177.00	.11109	.1341	.1496	53.12	5.901	.4171	558.3	.1869-02	.2084-02
47	1.0000	191.00	.37556-01	.4532-01	.5055-01	53.17	1.997	.4166	557.6	.6316-03	.7045-03
47	1.0000	192.00	.17766	.2145	.2392	53.10	9.433	.4173	558.6	.2989-02	.3334-02
47	1.0000	193.00	.17561	.2120	.2365	53.12	9.328	.4171	558.3	.2954-02	.3295-02
47	1.0000	194.00	.49970-01	.6030-01	.6726-01	53.18	2.657	.4164	557.4	.8404-03	.9373-03
47	2.0000	196.00	.51506-01	.6215-01	.6932-01	53.20	2.740	.4162	557.1	.8661-03	.9660-03
47	2.0000	197.00	.16935	.2044	.2280	53.12	8.996	.4170	558.2	.2849-02	.3177-02
47	2.0000	198.00	.12694	.1532	.1709	53.17	6.749	.4166	557.6	.2135-02	.2381-02
47	2.0000	199.00	.11159	.1347	.1502	53.17	5.933	.4165	557.5	.1877-02	.2093-02
47	2.0000	200.00	.24283-01	.2930-01	.3268-01	53.22	1.292	.4160	556.8	.4083-03	.4554-03
47	3.0000	201.00	.46743-01	.5641-01	.6291-01	53.19	2.486	.4163	557.3	.7861-03	.8767-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
48	3.836	5.280	25.00	.0000	307.7	1300.	317.5	.4151	201.2	.1731-03	3671.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2834
48	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
48	.0000	177.00	.82124-01	.9925-01	.1108	52.10	4.279	.4204	556.2	.1375-02	.1535-02
48	1.0000	191.00	.39241-01	.4742-01	.5293-01	52.14	2.046	.4200	555.6	.6567-03	.7331-03
48	1.0000	192.00	.12690	.1536	.1717	51.71	6.562	.4247	561.8	.2127-02	.2377-02
48	1.0000	193.00	.95651-01	.1156	.1291	52.09	4.982	.4206	556.4	.1601-02	.1787-02
48	1.0000	194.00	.24035-01	.2904-01	.3242-01	52.13	1.253	.4201	555.8	.4022-03	.4490-03
48	2.0000	195.00	.26769-01	.3234-01	.3610-01	52.15	1.396	.4199	555.5	.4480-03	.5000-03
48	2.0000	197.00	.14365	.1736	.1938	52.10	7.483	.4205	556.3	.2404-02	.2684-02
48	2.0000	198.00	.75135-01	.9079-01	.1014	52.12	3.916	.4202	555.9	.1257-02	.1404-02
48	2.0000	199.00	.85162-01	.1029	.1149	52.14	4.441	.4199	555.6	.1425-02	.1591-02
48	2.0000	200.00	.19502-01	.2356-01	.2630-01	52.16	1.017	.4197	555.3	.3263-03	.3643-03
48	3.0000	201.00	.29519-01	.3566-01	.3981-01	52.18	1.540	.4195	555.1	.4939-03	.5513-03

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OH110, MODEL 60-0, ORBITER WINDOWS

WINDOWS (50-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
77	3.790	5.280	27.50	.0000	313.6	1325.	324.1	.4225	205.4	.1725-03	3709.	.1750-01
RUN NUMBER	PHT DEG.	HS SPHERE TW=540 .2865										
77	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
77	.00000	177.00	.90230-01	.1086	.1208	54.94	4.957	.4080	551.0	.1509-02	.1680-02
77	1.0000	191.00	.50165-01	.6035-01	.6717-01	54.97	2.758	.4076	550.5	.8390-03	.9338-03
77	1.0000	192.00	.12926	.1555	.1731	54.91	7.098	.4083	551.4	.2162-02	.2407-02
77	1.0000	193.00	.68628-01	.8259-01	.9194-01	54.89	3.767	.4084	551.6	.1148-02	.1278-02
77	1.0000	194.00	.15072-01	.1813-01	.2018-01	54.97	.8285	.4077	550.6	.2521-03	.2806-03
77	2.0000	196.00	.12284-01	.1478-01	.1645-01	55.01	.6758	.4072	549.9	.2054-03	.2286-03
77	2.0000	197.00	.90819-01	.1093	.1216	54.94	4.989	.4080	551.0	.1519-02	.1691-02
77	2.0000	198.00	.35008-01	.4211-01	.4687-01	55.00	1.925	.4073	550.1	.5855-03	.6516-03
77	2.0000	199.00	.49685-01	.5976-01	.6651-01	55.04	2.735	.4069	549.6	.8308-03	.9246-03
77	2.0000	200.00	.23542-01	.2831-01	.3150-01	55.09	1.297	.4064	548.9	.3936-03	.4380-03
77	3.0000	201.00	.28312-01	.3404-01	.3788-01	55.11	1.560	.4061	548.5	.4733-03	.5266-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
80	3.879	5.280	30.00	.0000	310.1	1297.	316.8	.4184	200.8	.1749-03	3667.	.1750-01
80	PHI DEG.	HS SPHERE TM=540 .2845										
80	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
80	.00000	177.00	.10030	.1220	.1367	50.65	5.080	.4371	577.0	.1679-02	.1882-02
80	1.0000	191.00	.59169-01	.7194-01	.8064-01	50.69	3.000	.4365	576.4	.9902-03	.1110-02
80	1.0000	192.00	.14621	.1778	.1933	50.62	7.401	.4373	577.4	.2447-02	.2744-02
80	1.0000	193.00	.64759-01	.7874-01	.8828-01	50.66	3.280	.4370	576.9	.1084-02	.1215-02
80	1.0000	194.00	.17227-01	.2094-01	.2347-01	50.73	.8739	.4362	575.9	.2882-03	.3231-03
80	2.0000	196.00	.13353-01	.1623-01	.1819-01	50.75	.6777	.4359	575.5	.2234-03	.2504-03
80	2.0000	197.00	.60505-01	.7369-01	.8262-01	50.65	3.070	.4370	576.9	.1014-02	.1137-02
80	2.0000	198.00	.29915-01	.3637-01	.4076-01	50.73	1.517	.4362	575.9	.5006-03	.5610-03
80	2.0000	199.00	.36800-01	.4474-01	.5014-01	50.72	1.866	.4363	576.0	.6158-03	.6902-03
80	2.0000	200.00	.12307-01	.1495-01	.1676-01	50.82	.6254	.4352	574.6	.2059-03	.2307-03
80	3.0000	201.00	.19829-01	.2422-01	.2714-01	50.78	1.012	.4357	575.2	.3334-03	.3736-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
46	4.929	5.280	20.00	.0000	415.3	1340.	327.9	.5589	207.8	.2257-03	3731.	.1750-01
46	PHI DEG.	HS SPHERE TW=540 .3299										
46	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HQ/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
46	.00000	177.00	.14073	.1690	.1879	64.63	9.096	.4023	549.9	.2058-02	.2287-02
46	1.0000	191.00	.49265-01	.5916-01	.6577-01	64.65	3.185	.4022	549.6	.7202-03	.8006-03
46	1.0000	192.00	.20082	.2412	.2682	64.54	12.96	.4031	550.9	.2937-02	.3265-02
46	1.0000	193.00	.21304	.2560	.2846	64.50	13.74	.4035	551.5	.3116-02	.3465-02
46	1.0000	194.00	.68479-01	.8225-01	.9144-01	64.60	4.424	.4026	550.2	.1001-02	.1113-02
46	2.0000	196.00	.69692-01	.8368-01	.9302-01	64.66	4.508	.4019	549.3	.1019-02	.1132-02
46	2.0000	197.00	.17449	.2096	.2330	64.56	11.26	.4030	550.8	.2552-02	.2837-02
46	2.0000	198.00	.16951	.2036	.2263	64.64	10.96	.4022	549.7	.2478-02	.2755-02
46	2.0000	199.00	.12045	.1446	.1607	64.74	7.798	.4014	548.6	.1761-02	.1957-02
46	2.0000	200.00	.60878-01	.7309-01	.8123-01	64.75	3.942	.4013	548.4	.8898-03	.9889-03
46	3.0000	201.00	.71120-01	.8535-01	.9483-01	64.89	4.615	.4000	546.7	.1039-02	.1155-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0
OH110, MODEL 60-0, ORBITER WINDOWS

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WINDOWS (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
49	5.104	5.280	25.00	.0000	407.8	1297.	316.7	.5503	200.7	.2301-03	3666.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TM=540										
49	.0000	.3262										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
49	.00000	177.00	.10001	.1204	.1341	60.93	6.094	.4101	541.2	.1447-02	.1612-02
49	1.0000	191.00	.45082-01	.5427-01	.6043-01	61.01	2.750	.4094	540.2	.6523-03	.7263-03
49	1.0000	192.00	.14913	.1798	.2005	60.45	9.015	.4145	547.1	.2161-02	.2409-02
49	1.0000	193.00	.14205	.1710	.1905	60.93	8.655	.4101	541.2	.2056-02	.2289-02
49	1.0000	194.00	.35154-01	.4231-01	.4711-01	61.05	2.146	.4089	539.7	.5085-03	.5662-03
49	2.0000	196.00	.36872-01	.4437-01	.4940-01	61.11	2.253	.4084	538.9	.5333-03	.5937-03
49	2.0000	197.00	.15534	.1870	.2083	60.94	9.466	.4100	541.0	.2248-02	.2503-02
49	2.0000	198.00	.90250-01	.1086	.1209	61.05	5.510	.4089	539.6	.1306-02	.1454-02
49	2.0000	199.00	.93639-01	.1127	.1255	61.07	5.718	.4088	539.5	.1355-02	.1508-02
49	2.0000	200.00	.21958-01	.2641-01	.2940-01	61.23	1.345	.4072	537.4	.3175-03	.3533-03
49	3.0000	201.00	.36885-01	.4438-01	.4939-01	61.19	2.257	.4077	538.0	.5334-03	.5937-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGC07)

WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
78	5.048	5.280	27.50	.0000	409.5	1309.	319.8	.5521	202.7	.2286-03	3684.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3271
78	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
78	.00000	177.00	.99717-01	.1210	.1354	59.40	5.923	.4313	574.8	.1458-02	.1632-02
78	1.0000	191.00	.54176-01	.6573-01	.7357-01	59.43	3.220	.4309	574.4	.7922-03	.8867-03
78	1.0000	192.00	.14384	.1746	.1954	59.35	8.537	.4317	575.4	.2104-02	.2355-02
78	1.0000	193.00	.87459-01	.1061	.1188	59.35	5.190	.4317	575.4	.1279-02	.1432-02
78	1.0000	194.00	.17575-01	.2132-01	.2387-01	59.43	1.045	.4309	574.3	.2570-03	.2877-03
78	2.0000	196.00	.15529-01	.1884-01	.2108-01	59.47	.9235	.4306	573.9	.2270-03	.2541-03
78	2.0000	197.00	.12295	.1492	.1670	59.37	7.300	.4315	575.1	.1798-02	.2013-02
78	2.0000	198.00	.50864-01	.6170-01	.6906-01	59.45	3.024	.4308	574.2	.7437-03	.8324-03
78	2.0000	199.00	.62611-01	.7595-01	.8500-01	59.48	3.724	.4305	573.7	.9154-03	.1024-02
78	2.0000	200.00	.29695-01	.3601-01	.4029-01	59.57	1.769	.4297	572.7	.4340-03	.4857-03
78	3.0000	201.00	.37612-01	.4561-01	.5103-01	59.58	2.241	.4295	572.5	.5497-03	.6151-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC07)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDRBK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
79	4.997	5.280	30.00	.0000	408.0	1314.	321.2	.5499	203.6	.2267-03	3692.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
79	.0000	.3266										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
79	.00000	177.00	.10151	.1231	.1377	59.79	6.069	.4292	574.5	.1490-02	.1667-02
79	1.0000	191.00	.63642-01	.7715-01	.8632-01	59.81	3.806	.4290	574.2	.9342-03	.1045-02
79	1.0000	192.00	.13935	.1690	.1890	59.76	8.327	.4294	574.9	.2046-02	.2289-02
79	1.0000	193.00	.79872-01	.9685-01	.1084	59.75	4.773	.4295	574.9	.1173-02	.1312-02
79	1.0000	194.00	.19294-01	.2339-01	.2617-01	59.82	1.154	.4289	574.1	.2832-03	.3168-03
79	2.0000	196.00	.15148-01	.1836-01	.2054-01	59.85	.9066	.4286	573.7	.2223-03	.2487-03
79	2.0000	197.00	.75193-01	.9117-01	.1020	59.78	4.495	.4293	574.6	.1104-02	.1235-02
79	2.0000	198.00	.40854-01	.4952-01	.5540-01	59.85	2.445	.4286	573.7	.5996-03	.6708-03
79	2.0000	199.00	.44005-01	.5333-01	.5966-01	59.89	2.635	.4282	573.2	.6458-03	.7223-03
79	2.0000	200.00	.26408-01	.3200-01	.3579-01	59.93	1.583	.4278	572.7	.3875-03	.4334-03
79	3.0000	201.00	.33869-01	.4104-01	.4589-01	59.96	2.031	.4275	572.3	.4969-03	.5557-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC08)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
81	5.114	5.280	25.00	.0000	407.8	1295.	316.2	.5502	200.4	.2304-03	3664.	.1750-01
81		HS SPHERE TW=540 .3261										
81	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
81	.0000	177.00	.95372-01	.1163	.1306	57.18	5.453	.4445	585.7	.1394-02	.1566-02
81	1.0000	191.00	.43706-01	.5329-01	.5986-01	57.22	2.501	.4441	585.2	.6387-03	.7174-03
81	1.0000	192.00	.14902	.1818	.2042	57.15	8.517	.4447	586.1	.2178-02	.2447-02
81	1.0000	193.00	.13569	.1655	.1859	57.17	7.758	.4445	585.8	.1983-02	.2228-02
81	1.0000	194.00	.31097-01	.3791-01	.4258-01	57.25	1.780	.4438	584.8	.4544-03	.5104-03
81	2.0000	196.00	.34114-01	.4159-01	.4670-01	57.29	1.955	.4434	584.3	.4985-03	.5597-03
81	2.0000	197.00	.15710	.1916	.2152	57.18	8.983	.4444	585.7	.2296-02	.2579-02
81	2.0000	198.00	.88100-01	.1074	.1206	57.29	5.047	.4434	584.4	.1287-02	.1446-02
81	2.0000	199.00	.91966-01	.1121	.1259	57.30	5.270	.4433	584.2	.1344-02	.1509-02
81	2.0000	200.00	.21784-01	.2655-01	.2980-01	57.39	1.250	.4425	583.1	.3182-03	.3572-03
81	3.0000	201.00	.35170-01	.4286-01	.4812-01	57.39	2.018	.4425	583.2	.5137-03	.5768-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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(RAGC09)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
51	3.337	7.300	20.00	.0000	693.8	1397.	342.5	.1254	122.4	.8596-04	3959.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
51	.0000	.2171										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
51	.00000	177.00	.47813-01	.5707-01	.6317-01	45.87	2.193	.3829	546.5	.1131-02	.1252-02
51	1.0000	191.00	.17328-01	.2068-01	.2289-01	45.88	.7949	.3828	546.4	.4098-03	.4537-03
51	1.0000	192.00	.81655-01	.9746-01	.1079	45.84	3.743	.3833	547.1	.1932-02	.2138-02
51	1.0000	193.00	.62226-01	.7427-01	.8223-01	45.84	2.852	.3833	547.1	.1472-02	.1630-02
51	1.0000	194.00	.20289-01	.2421-01	.2680-01	45.87	.9307	.3829	546.5	.4799-03	.5312-03
51	2.0000	196.00	.23973-01	.2861-01	.3167-01	45.88	1.100	.3837	546.3	.5670-03	.6277-03
51	2.0000	197.00	.93778-01	.1119	.1239	45.86	4.300	.3831	546.8	.2218-02	.2456-02
51	2.0000	198.00	.60577-01	.7229-01	.8002-01	45.89	2.780	.3826	546.2	.1433-02	.1586-02
51	2.0000	199.00	.65334-01	.7796-01	.8630-01	45.90	2.999	.3825	546.1	.1545-02	.1710-02
51	2.0000	200.00	.15655-01	.1968-01	.2067-01	45.92	.7189	.3822	545.6	.3702-03	.4098-03
51	3.0000	201.00	.24969-01	.2979-01	.3297-01	45.93	1.147	.3821	545.5	.5905-03	.6536-03

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OH110 (ARC3.544T-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC09)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TI DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
52	3.394	7.300	25.00	.0000	692.9	1382.	338.6	.1254	121.0	.8693-04	3936.	.1750-01
52	PHI DEG.	HS SPHERE TW=540 .2168										
52	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QDOT BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
52	.00000	177.00	.58870-01	.7062-01	.7846-01	44.06	2.594	.3992	563.2	.1389-02	.1543-02
52	1.0000	191.00	.24947-01	.2993-01	.3325-01	44.05	1.099	.3993	563.4	.5888-03	.6541-03
52	1.0000	192.00	.68502-01	.8220-01	.9132-01	44.01	3.015	.3998	564.1	.1617-02	.1796-02
52	1.0000	193.00	.31565-01	.3788-01	.4209-01	43.99	1.389	.4001	564.5	.7451-03	.8279-03
52	1.0000	194.00	.10646-01	.1278-01	.1419-01	44.00	.4684	.4000	564.4	.2513-03	.2792-03
52	2.0000	196.00	.10583-01	.1270-01	.1411-01	43.99	.4656	.4000	564.4	.2498-03	.2776-03
52	2.0000	197.00	.44626-01	.5355-01	.5950-01	44.00	1.964	.3999	564.3	.1053-02	.1170-02
52	2.0000	198.00	.22276-01	.2673-01	.2970-01	44.00	.9801	.4000	564.4	.5258-03	.5842-03
52	2.0000	199.00	.28760-01	.3451-01	.3834-01	44.03	1.266	.3995	563.8	.6788-03	.7541-03
52	2.0000	200.00	.80975-02	.9717-02	.1080-01	44.00	.3563	.4000	564.4	.1911-03	.2124-03
52	3.0000	201.00	.11525-01	.1383-01	.1536-01	44.04	.5076	.3994	563.5	.2720-03	.3022-03

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OH110 (ARC3.54HT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC09)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
53	3.675	7.300	27.50	.0000	691.4	1315.	321.5	.1256	114.9	.9171-04	3836.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2158
53	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
53	.00000	177.00	.70731-01	.8498-01	.9450-01	41.39	2.927	.4036	540.7	.1621-02	.1802-02
53	1.0000	191.00	.35543-01	.4270-01	.4748-01	41.39	1.471	.4034	540.5	.8143-03	.9055-03
53	1.0000	192.00	.82006-01	.9853-01	.1096	41.37	3.392	.4038	541.0	.1879-02	.2090-02
53	1.0000	193.00	.26846-01	.3226-01	.3587-01	41.37	1.111	.4037	540.9	.6151-03	.6840-03
53	1.0000	194.00	.86231-02	.1036-01	.1152-01	41.40	.3570	.4034	540.5	.1976-03	.2197-03
53	2.0000	196.00	.59523-02	.7151-02	.7951-02	41.41	.2465	.4033	540.3	.1364-03	.1516-03
53	2.0000	197.00	.31054-01	.3731-01	.4149-01	41.38	1.285	.4036	540.8	.7115-03	.7912-03
53	2.0000	198.00	.14123-01	.1697-01	.1887-01	41.40	.5847	.4033	540.3	.3236-03	.3598-03
53	2.0000	199.00	.17653-01	.2121-01	.2358-01	41.41	.7310	.4032	540.2	.4044-03	.4497-03
53	2.0000	200.00	.13283-01	.1596-01	.1774-01	41.43	.5503	.4030	539.9	.3043-03	.3383-03
53	3.0000	201.00	.20309-01	.2440-01	.2713-01	41.42	.8412	.4031	540.0	.4652-03	.5173-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 60-0, ORBITER WINDOWS

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(RAGC09)

WINDOWS (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
56	3.709	7.300	30.00	.0000	690.1	1307.	319.2	.1254	114.1	.9223-04	3822.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
56	.0000	.2155										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
56	.00000	177.00	.80738-01	.9780-01	.1094	39.39	3.180	.4268	567.8	.1856-02	.2076-02
56	1.0000	191.00	.43019-01	.5211-01	.5826-01	39.40	1.695	.4267	567.7	.9891-03	.1106-02
56	1.0000	192.00	.93644-01	.1135	.1269	39.36	3.686	.4272	568.4	.2153-02	.2408-02
56	1.0000	193.00	.20646-01	.2501-01	.2797-01	39.37	.8129	.4270	568.1	.4747-03	.5309-03
56	1.0000	194.00	.11537-01	.1398-01	.1563-01	39.39	.4544	.4268	567.8	.2653-03	.2966-03
56	2.0000	196.00	.80783-02	.9786-02	.1094-01	39.39	.3182	.4269	567.9	.1857-03	.2077-03
56	2.0000	197.00	.22479-01	.2723-01	.3045-01	39.36	.8849	.4272	568.3	.5169-03	.5780-03
56	2.0000	198.00	.11472-01	.1390-01	.1554-01	39.39	.4518	.4269	567.9	.2638-03	.2949-03
56	2.0000	199.00	.16504-01	.1999-01	.2236-01	39.38	.6499	.4269	568.0	.3795-03	.4243-03
56	2.0000	200.00	.36534-02	.4425-02	.4948-02	39.39	.1439	.4267	567.7	.8400-04	.9392-04
56	3.0000	201.00	.97246-02	.1178-01	.1317-01	39.39	.3830	.4269	567.9	.2236-03	.2500-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC10)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
76	3.798	7.300	25.00	.0000	689.7	1288.	314.3	.1255	112.4	.9370-04	3793.	.1750-01
76	PHI DEG.	HS SPHERE TW=540 .2152										
76	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
76	.00000	177.00	.58795-01	.7106-01	.7934-01	39.17	2.303	.4208	551.2	.1337-02	.1493-02
76	1.0000	191.00	.25562-01	.3089-01	.3449-01	39.18	1.002	.4205	550.9	.5812-03	.6489-03
76	1.0000	192.00	.71171-01	.8603-01	.9606-01	39.15	2.787	.4210	551.5	.1619-02	.1807-02
76	1.0000	193.00	.33494-01	.4049-01	.4520-01	39.16	1.311	.4210	551.5	.7617-03	.8505-03
76	1.0000	194.00	.11364-01	.1373-01	.1533-01	39.18	.4452	.4206	551.1	.2584-03	.2885-03
76	2.0000	196.00	.11138-01	.1346-01	.1503-01	39.19	.4365	.4205	550.9	.2533-03	.2828-03
76	2.0000	197.00	.49596-01	.5995-01	.6693-01	39.16	1.942	.4208	551.3	.1128-02	.1253-02
76	2.0000	198.00	.23713-01	.2866-01	.3200-01	39.18	.9291	.4206	551.1	.5392-03	.6020-03
76	2.0000	199.00	.31006-01	.3747-01	.4183-01	39.19	1.215	.4205	550.9	.7050-03	.7871-03
76	2.0000	200.00	.89735-02	.1084-01	.1211-01	39.21	.3518	.4202	550.5	.2040-03	.2278-03
76	3.0000	201.00	.11954-01	.1445-01	.1613-01	39.20	.4687	.4203	550.6	.2718-03	.3034-03

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(RAGC11)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
59	9.412	7.300	20.00	.0000	1719.	1292.	315.5	.3127	112.8	.2326-03	3800.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
59	.0000	.3399

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
59	.00000	177.00	.82907-01	.1004	.1122	61.48	5.097	.4262	560.4	.1199-02	.1340-02
59	1.0000	191.00	.27979-01	.3388-01	.3787-01	61.52	1.721	.4258	559.9	.4046-03	.4522-03
59	1.0000	192.00	.15858	.1921	.2147	61.44	9.743	.4265	560.8	.2293-02	.2564-02
59	1.0000	193.00	.14945	.1810	.2024	61.46	9.185	.4264	560.6	.2161-02	.2416-02
59	1.0000	194.00	.33270-01	.4029-01	.4503-01	61.52	2.047	.4258	559.8	.4810-03	.5377-03
59	2.0000	196.00	.34406-01	.4166-01	.4656-01	61.55	2.118	.4255	559.5	.4974-03	.5560-03
59	2.0000	197.00	.14562	.1764	.1972	61.47	8.952	.4262	560.4	.2106-02	.2354-02
59	2.0000	198.00	.93251-01	.1129	.1262	61.53	5.738	.4257	559.7	.1348-02	.1507-02
59	2.0000	199.00	.91196-01	.1104	.1234	61.54	5.612	.4257	559.7	.1319-02	.1474-02
59	2.0000	200.00	.14174-01	.1716-01	.1918-01	61.60	.8731	.4251	558.9	.2049-03	.2290-03
59	3.0000	201.00	.28491-01	.3449-01	.3855-01	61.58	1.754	.4253	559.2	.4119-03	.4604-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

(RAGC11)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
58	9.117	7.300	25.00	.0000	1683.	1301.	317.6	.3060	113.6	.2261-03	3813.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
58	.0000	.3365										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
58	.00000	177.00	.65812-01	.7919-01	.8816-01	63.25	4.163	.4082	540.4	.9606-03	.1069-02
58	1.0000	191.00	.35051-01	.4217-01	.4694-01	63.28	2.218	.4079	540.0	.5116-03	.5694-03
58	1.0000	192.00	.10810	.1301	.1448	63.22	6.834	.4085	540.8	.1578-02	.1757-02
58	1.0000	193.00	.68920-01	.8294-01	.9233-01	63.23	4.358	.4084	540.6	.1006-02	.1120-02
58	1.0000	194.00	.14017-01	.1687-01	.1877-01	63.30	.8872	.4078	539.9	.2046-03	.2277-03
58	2.0000	196.00	.15825-01	.1904-01	.2119-01	63.34	1.002	.4074	539.4	.2309-03	.2570-03
58	2.0000	197.00	.11809	.1421	.1582	63.26	7.470	.4082	540.4	.1724-02	.1919-02
58	2.0000	198.00	.53378-01	.6422-01	.7148-01	63.30	3.379	.4078	539.9	.7790-03	.8671-03
58	2.0000	199.00	.64665-01	.7780-01	.8659-01	63.32	4.095	.4076	539.5	.9437-03	.1050-02
58	2.0000	200.00	.14701-01	.1768-01	.1968-01	63.38	.9318	.4070	538.8	.2145-03	.2387-03
58	3.0000	201.00	.21556-01	.2593-01	.2886-01	63.37	1.366	.4071	539.0	.3145-03	.3501-03

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OH110 (ARC3.54HT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC11)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
57	8.894	7.300	27.50	.0000	1677.	1317.	321.9	.3046	115.1	.2221-03	3838.	.1750-01
57	PHI DEG.	HS SPHERE TW=540 .3362										
57	.0000											

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
57	.0000	177.00	.78704-01	.9532-01	.1066	62.00	4.880	.4262	571.8	.1167-02	.1304-02
57	1.0000	191.00	.45383-01	.5496-01	.6144-01	62.01	2.814	.4262	571.7	.6727-03	.7521-03
57	1.0000	192.00	.11912	.1443	.1613	61.96	7.381	.4266	572.3	.1766-02	.1975-02
57	1.0000	193.00	.44086-01	.5340-01	.5970-01	61.96	2.732	.4266	572.3	.6536-03	.7308-03
57	1.0000	194.00	.93354-02	.1131-01	.1264-01	62.00	.5788	.4262	571.8	.1384-03	.1547-03
57	2.0000	196.00	.70448-02	.8532-02	.9538-02	62.01	.4368	.4262	571.7	.1044-03	.1167-03
57	2.0000	197.00	.51650-01	.6256-01	.6994-01	61.98	3.201	.4264	572.1	.7657-03	.8561-03
57	2.0000	198.00	.19675-01	.2383-01	.2664-01	62.02	1.220	.4261	571.6	.2917-03	.3261-03
57	2.0000	199.00	.25085-01	.3038-01	.3396-01	62.04	1.556	.4259	571.4	.3718-03	.4157-03
57	2.0000	200.00	.10972-01	.1329-01	.1485-01	62.04	.6808	.4259	571.3	.1626-03	.1818-03
57	3.0000	201.00	.13604-01	.1647-01	.1841-01	62.07	.8444	.4256	571.0	.2016-03	.2254-03

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WINDOWS (60-0)

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

OH110, MODEL 60-0, ORBITER WINDOWS

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PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSTA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
55	9.109	7.300	30.00	.0000	1686.	1303.	318.2	.3065	113.8	.2261-03	3816.	.1750-01
55	.0000	HS SPHERE TW=540 .3368										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
55	.0000	177.00	.80799-01	.9764-01	.1090	62.10	5.017	.4202	557.2	.1184-02	.1321-02
55	1.0000	191.00	.52637-01	.6361-01	.7100-01	62.11	3.269	.4201	557.1	.7711-03	.8608-03
55	1.0000	192.00	.13510	.1633	.1823	62.05	8.383	.4206	557.8	.1979-02	.2210-02
55	1.0000	193.00	.42419-01	.5126-01	.5723-01	62.07	2.633	.4204	557.5	.6215-03	.6938-03
55	1.0000	194.00	.12269-01	.1482-01	.1655-01	62.12	.7621	.4200	557.0	.1797-03	.2006-03
55	2.0000	196.00	.90920-02	.1099-01	.1226-01	62.14	.5650	.4198	556.7	.1332-03	.1487-03
55	2.0000	197.00	.41134-01	.4971-01	.5549-01	62.09	2.554	.4203	557.4	.6026-03	.6727-03
55	2.0000	198.00	.20280-01	.2450-01	.2735-01	62.15	1.260	.4197	556.6	.2971-03	.3316-03
55	2.0000	199.00	.26718-01	.3228-01	.3603-01	62.16	1.661	.4196	556.4	.3913-03	.4368-03
55	2.0000	200.00	.62111-02	.7503-02	.8374-02	62.20	.3863	.4193	556.0	.9097-04	.1015-03
55	3.0000	201.00	.12579-01	.1520-01	.1696-01	62.21	.7825	.4192	555.9	.1842-03	.2056-03

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(RAGC12)

WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
68	3.728	7.300	27.50	-2.000	689.8	1302.	318.1	.1254	113.7	.9253-04	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TH=540
68	.0000	.2154

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
68	.0000	177.00	.32718-01	.3956-01	.4417-01	39.62	1.296	.4215	558.8	.7496-03	.8371-03
68	1.0000	191.00	.85879-02	.1038-01	.1153-01	39.63	.3403	.4213	558.6	.1967-03	.2197-03
68	1.0000	192.00	.36619-01	.4428-01	.4945-01	39.59	1.450	.4220	559.5	.8391-03	.9371-03
68	1.0000	193.00	.12478-01	.1509-01	.1685-01	39.58	.4939	.4220	559.5	.2859-03	.3193-03
68	1.0000	194.00	.39586-02	.4786-02	.5344-02	39.62	.1568	.4215	558.9	.9070-04	.1013-03
68	2.0000	196.00	.43209-02	.5224-02	.5833-02	39.62	.1712	.4214	558.7	.9899-04	.1105-03
68	2.0000	197.00	.19147-01	.2315-01	.2585-01	39.59	.7580	.4219	559.3	.4387-03	.4900-03
68	2.0000	198.00	.12325-01	.1490-01	.1684-01	39.62	.4882	.4215	558.9	.2824-03	.3153-03
68	2.0000	199.00	.17291-01	.2090-01	.2334-01	39.62	.6851	.4215	558.8	.3962-03	.4424-03
68	2.0000	200.00	.80074-02	.9679-02	.1081-01	39.65	.3175	.4210	558.2	.1834-03	.2048-03
68	3.0000	201.00	.10882-01	.1315-01	.1469-01	39.65	.4315	.4210	558.2	.2493-03	.2783-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC13)

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
69	8.971	7.300	27.50	-2.000	1675.	1310.	320.0	.3044	114.4	.2233-03	3827.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3359
69	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
69	.00000	177.00	.84372-01	.1020	.1138	62.27	5.254	.4201	560.2	.1244-02	.1389-02
69	1.0000	191.00	.12652-01	.1529-01	.1706-01	62.32	.7885	.4196	559.6	.1866-03	.2082-03
69	1.0000	192.00	.73173-01	.8843-01	.9872-01	62.25	4.555	.4203	560.5	.1079-02	.1205-02
69	1.0000	193.00	.18979-01	.2293-01	.2560-01	62.27	1.182	.4201	560.2	.2799-03	.3124-03
69	1.0000	194.00	.57905-02	.6995-02	.7808-02	62.34	.3610	.4194	559.3	.8538-04	.9529-04
69	2.0000	196.00	.78979-02	.9540-02	.1065-01	62.38	.4927	.4191	558.9	.1164-03	.1300-03
69	2.0000	197.00	.38813-01	.4690-01	.5235-01	62.29	2.418	.4199	560.0	.5724-03	.6389-03
69	2.0000	198.00	.20154-01	.2435-01	.2717-01	62.37	1.257	.4192	559.0	.2971-03	.3316-03
69	2.0000	199.00	.28191-01	.3405-01	.3801-01	62.37	1.758	.4192	559.0	.4156-03	.4639-03
69	2.0000	200.00	.65250-02	.7880-02	.8793-02	62.45	.4075	.4185	558.1	.9618-04	.1073-03
69	3.0000	201.00	.73596-02	.8889-02	.9920-02	62.42	.4594	.4188	558.5	.1085-03	.1211-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
72	3.701	7.300	27.50	-1.000	690.4	1309.	319.8	.1255	114.3	.9211-04	3826.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2156
72	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
72	.00000	177.00	.56122-01	.6780-01	.7567-01	40.01	2.245	.4193	558.7	.1288-02	.1438-02
72	1.0000	191.00	.17316-01	.2092-01	.2334-01	40.03	.6931	.4190	558.3	.3975-03	.4436-03
72	1.0000	192.00	.55323-01	.6584-01	.7460-01	39.99	2.212	.4195	559.1	.1270-02	.1418-02
72	1.0000	193.00	.15763-01	.1904-01	.2125-01	40.00	.6305	.4194	558.9	.3619-03	.4039-03
72	1.0000	194.00	.40420-02	.4882-02	.5449-02	40.02	.1618	.4190	558.4	.9279-04	.1036-03
72	2.0000	196.00	.30808-02	.3721-02	.4153-02	40.03	.1233	.4189	558.2	.7072-04	.7892-04
72	2.0000	197.00	.24604-01	.2972-01	.3317-01	40.00	.9842	.4193	558.8	.5648-03	.6304-03
72	2.0000	198.00	.11279-01	.1362-01	.1521-01	40.02	.4514	.4191	558.5	.2589-03	.2890-03
72	2.0000	199.00	.15525-01	.1875-01	.2093-01	40.02	.6213	.4191	558.5	.3564-03	.3977-03
72	2.0000	200.00	.81853-02	.9886-02	.1103-01	40.05	.3278	.4186	557.9	.1879-03	.2037-03
72	3.0000	201.00	.10331-01	.1248-01	.1393-01	40.04	.4136	.4188	558.2	.2371-03	.2646-03

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC15)

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
73	8.988	7.300	27.50	-1.000	1673.	1307.	319.3	.3040	114.1	.2235-03	3823.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
73	.0000	.3355										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
73	.00000	177.00	.10794	.1303	.1453	62.47	6.743	.4165	554.2	.1589-02	.1773-02
73	1.0000	191.00	.24933-01	.3008-01	.3355-01	62.52	1.559	.4161	553.6	.3671-03	.4094-03
73	1.0000	192.00	.10786	.1302	.1452	62.44	6.735	.4168	554.5	.1588-02	.1771-02
73	1.0000	193.00	.23669-01	.2856-01	.3186-01	62.47	1.479	.4165	554.2	.3485-03	.3887-03
73	1.0000	194.00	.41486-02	.5006-02	.5582-02	62.54	.2595	.4159	553.3	.6107-04	.6811-04
73	2.0000	196.00	.51780-02	.6247-02	.6966-02	62.57	.3240	.4156	553.0	.7622-04	.8499-04
73	2.0000	197.00	.37817-01	.4564-01	.5090-01	62.49	2.363	.4164	554.0	.5568-03	.6210-03
73	2.0000	198.00	.22025-01	.2657-01	.2963-01	62.55	1.378	.4158	553.2	.3242-03	.3615-03
73	2.0000	199.00	.28023-01	.3381-01	.3770-01	62.55	1.753	.4157	553.2	.4125-03	.4600-03
73	2.0000	200.00	.93391-02	.1126-01	.1256-01	62.63	.5850	.4150	552.2	.1374-03	.1532-03
73	3.0000	201.00	.14954-01	.1804-01	.2011-01	62.61	.9363	.4152	552.5	.2201-03	.2454-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC16)

WINDOWS (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
75	3.656	7.300	27.50	1.000	690.0	1318.	322.1	.1253	115.2	.9132-04	3840.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
75	.0000	.2157

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
75	.00000	177.00	.65330-01	.7851-01	.8732-01	41.38	2.703	.4043	542.8	.1501-02	.1669-02
75	1.0000	191.00	.39488-01	.4745-01	.5277-01	41.39	1.634	.4041	542.6	.9070-03	.1009-02
75	1.0000	192.00	.82295-01	.9891-01	.1100	41.35	3.403	.4047	543.3	.1890-02	.2103-02
75	1.0000	193.00	.38995-01	.4687-01	.5213-01	41.35	1.612	.4047	543.3	.8958-03	.9963-03
75	1.0000	194.00	.13463-01	.1618-01	.1799-01	41.37	.5570	.4044	542.9	.3092-03	.3439-03
75	2.0000	196.00	.97313-02	.1169-01	.1301-01	41.39	.4028	.4041	542.6	.2235-03	.2486-03
75	2.0000	197.00	.42146-01	.5065-01	.5634-01	41.36	1.743	.4045	543.1	.9681-03	.1077-02
75	2.0000	198.00	.16857-01	.2026-01	.2253-01	41.37	.6975	.4044	542.9	.3872-03	.4306-03
75	2.0000	199.00	.19951-01	.2397-01	.2666-01	41.39	.8257	.4042	542.6	.4582-03	.5096-03
75	2.0000	200.00	.60471-02	.7266-02	.8080-02	41.41	.2504	.4039	542.2	.1389-03	.1544-03
75	3.0000	201.00	.84706-02	.1018-01	.1132-01	41.40	.3507	.4039	542.3	.1945-03	.2163-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

(RAGC17)

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
74	9.124	7.300	27.50	1.000	1674.	1296.	316.4	.3044	113.1	.2258-03	3805.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
74	.0000	.3355										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
74	.00000	177.00	.10600	.1286	.1439	60.40	6.402	.4303	567.4	.1558-02	.1744-02
74	1.0000	191.00	.53046-01	.6433-01	.7199-01	60.43	3.205	.4300	567.1	.7796-03	.8725-03
74	1.0000	192.00	.10204	.1238	.1385	60.37	6.160	.4306	567.7	.1500-02	.1679-02
74	1.0000	193.00	.74427-01	.9027-01	.1010	60.40	4.495	.4303	567.4	.1094-02	.1224-02
74	1.0000	194.00	.14888-01	.1805-01	.2020-01	60.45	.9000	.4298	566.7	.2188-03	.2448-03
74	2.0000	196.00	.10061-01	.1220-01	.1365-01	60.48	.6085	.4295	566.4	.1478-03	.1654-03
74	2.0000	197.00	.79952-01	.9697-01	.1085	60.41	4.830	.4302	567.3	.1175-02	.1315-02
74	2.0000	198.00	.22477-01	.2726-01	.3050-01	60.47	1.359	.4296	566.5	.3303-03	.3696-03
74	2.0000	199.00	.29249-01	.3547-01	.3968-01	60.48	1.769	.4296	566.4	.4298-03	.4809-03
74	2.0000	200.00	.10874-01	.1318-01	.1475-01	60.54	.6584	.4290	565.6	.1598-03	.1787-03
74	3.0000	201.00	.13733-01	.1665-01	.1863-01	60.53	.8312	.4291	565.8	.2018-03	.2257-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGC18)

WINDOWS (60-O)

OH110, MODEL 60-O, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
71	3.670	7.300	27.50	2.000	690.2	1315.	321.4	.1254	114.9	.9157-04	3835.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2156
71	.0000	

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
71	.00000	177.00	.58863-01	.7082-01	.7882-01	41.04	2.416	.4077	546.1	.1351-02	.1504-02
71	1.0000	191.00	.37051-01	.4457-01	.4961-01	41.06	1.521	.4074	545.7	.8504-03	.9465-03
71	1.0000	192.00	.70990-01	.8542-01	.9508-01	41.02	2.912	.4080	546.4	.1630-02	.1814-02
71	1.0000	193.00	.48721-01	.5862-01	.6525-01	41.02	1.999	.4079	546.4	.1118-02	.1245-02
71	1.0000	194.00	.18155-01	.2184-01	.2431-01	41.05	.7452	.4075	545.9	.4167-03	.4638-03
71	2.0000	196.00	.12499-01	.1504-01	.1673-01	41.06	.5132	.4074	545.6	.2869-03	.3193-03
71	2.0000	197.00	.51657-01	.6215-01	.6918-01	41.03	2.119	.4078	546.3	.1186-02	.1320-02
71	2.0000	198.00	.18019-01	.2168-01	.2413-01	41.05	.7397	.4075	545.9	.4136-03	.4604-03
71	2.0000	199.00	.21191-01	.2549-01	.2837-01	41.06	.8700	.4074	545.7	.4864-03	.5414-03
71	2.0000	200.00	.47114-02	.5667-02	.6307-02	41.08	.1935	.4072	545.3	.1081-03	.1203-03
71	3.0000	201.00	.57936-02	.6969-02	.7757-02	41.07	.2379	.4073	545.5	.1330-03	.1480-03

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(RAGC19)

WINDOWS (60-0)

OH110, MODEL 60-0, ORBITER WINDOWS

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
70	9.0000	7.300	27.50	2.000	1674.	1306.	319.1	.3042	114.1	.2238-03	3822.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
70	.0000	.3357										

TEST DATA

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
70	.00000	177.00	.11459	.1386	.1549	61.74	7.075	.4231	562.7	.1690-02	.1887-02
70	1.0000	191.00	.46483-01	.5622-01	.6280-01	61.77	2.871	.4228	562.3	.6853-03	.7655-03
70	1.0000	192.00	.80826-01	.9779-01	.1093	61.69	4.987	.4235	563.3	.1192-02	.1332-02
70	1.0000	193.00	.91287-01	.1104	.1234	61.72	5.635	.4232	562.9	.1346-02	.1504-02
70	1.0000	194.00	.18876-01	.2263-01	.2550-01	61.80	1.167	.4225	562.0	.2783-03	.3108-03
70	2.0000	196.00	.12534-01	.1516-01	.1693-01	61.82	.7749	.4224	561.7	.1848-03	.2054-03
70	2.0000	197.00	.97394-01	.1178	.1316	61.74	6.013	.4231	562.8	.1436-02	.1604-02
70	2.0000	198.00	.24429-01	.2955-01	.3300-01	61.81	1.510	.4225	561.9	.3601-03	.4022-03
70	2.0000	199.00	.30659-01	.3708-01	.4142-01	61.80	1.895	.4225	562.0	.4520-03	.5048-03
70	2.0000	200.00	.10579-01	.1279-01	.1428-01	61.91	.6550	.4215	560.7	.1559-03	.1741-03
70	3.0000	201.00	.13012-01	.1573-01	.1757-01	61.87	.8051	.4219	561.1	.1918-03	.2142-03

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OH110 (ARC3.5-HT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV011)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
30	3.742	5.280	20.00	.0000	308.9	1323.	323.6	.4162	205.1	.1703-03	3706.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2843										
30	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
30	.30000	.90000	352.00	.7420-02	.8907-02	.9899-02	55.09	.4088	.4010	540.8	.1247-03	.1386-03
30	.40000	.70000	357.00	.4770-02	.5723-02	.6358-02	55.27	.2636	.3992	538.3	.8013-04	.8901-04
30	.40000	.90000	358.00	.3026-02	.3632-02	.4037-02	55.06	.1666	.4014	541.3	.5085-04	.5652-04
30	.50000	.90000	361.00	.7480-02	.8979-02	.9980-02	55.09	.4120	.4011	540.9	.1257-03	.1397-03
30	.60000	.70000	367.00	.1557-01	.1867-01	.2074-01	55.36	.8617	.3983	537.1	.2614-03	.2903-03
30	.60000	.90000	368.00	.1258-01	.1510-01	.1678-01	55.08	.6929	.4012	541.0	.2114-03	.2350-03
30	.70000	.70000	370.00	.1916-01	.2298-01	.2553-01	55.28	1.059	.3991	538.2	.3218-03	.3575-03
30	.80000	.70000	376.00	.2230-01	.2676-01	.2974-01	55.15	1.230	.4004	540.0	.3747-03	.4163-03
30	.80000	.90000	377.00	.1754-01	.2106-01	.2341-01	54.99	.9644	.4021	542.2	.2948-03	.3277-03
30	.90000	.70000	381.00	.1428-01	.1715-01	.1906-01	55.06	.7865	.4014	541.2	.2401-03	.2668-03
30	.90000	.90000	382.00	.1635-01	.1964-01	.2184-01	54.82	.8961	.4039	544.7	.2749-03	.3057-03

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
32	3.680	5.280	22.50	.0000	312.1	1346.	329.4	.4199	208.7	.1688-03	3739.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
32	.0000	.2861										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
32	.30000	.90000	352.00	.5125-02	.6158-02	.6847-02	56.17	.2879	.4035	553.9	.8670-04	.9641-04
32	.40000	.70000	357.00	.6443-02	.7735-02	.8598-02	56.37	.3632	.4015	551.1	.1089-03	.1211-03
32	.40000	.90000	358.00	.4935-02	.5931-02	.6596-02	56.12	.2770	.4041	554.7	.8350-04	.9286-04
32	.50000	.90000	361.00	.6003-02	.7213-02	.8022-02	56.14	.3370	.4039	554.4	.1016-03	.1129-03
32	.60000	.70000	367.00	.8647-02	.1038-01	.1154-01	56.43	.4879	.4009	550.3	.1462-03	.1624-03
32	.60000	.90000	368.00	.6809-02	.8183-02	.9101-02	56.11	.3820	.4042	554.9	.1152-03	.1281-03
32	.70000	.70000	370.00	.1479-01	.1776-01	.1974-01	56.31	.8329	.4021	552.0	.2501-03	.2780-03
32	.80000	.70000	376.00	.1801-01	.2164-01	.2406-01	56.14	1.011	.4039	554.4	.3046-03	.3387-03
32	.80000	.90000	377.00	.1451-01	.1745-01	.1941-01	55.94	.8117	.4059	557.1	.2456-03	.2733-03
32	.90000	.70000	381.00	.1823-01	.2192-01	.2439-01	55.94	1.020	.4059	557.1	.3086-03	.3434-03
32	.90000	.90000	382.00	.1644-01	.1978-01	.2203-01	55.66	.9149	.4088	561.1	.2785-03	.3100-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV01)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDRBK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
34	3.805	5.280	25.00	.0000	303.2	1294.	316.1	.4092	200.3	.1714-03	3663.	.1750-01
34	PHI DEG.	HS SPHERE TW=540 .2812										
34	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
34	.30000	.90000	352.00	.8364-02	.1012-01	.1130-01	51.27	.4288	.4227	556.9	.1407-03	.1572-03
34	.40000	.70000	357.00	.1229-01	.1486-01	.1559-01	51.41	.6320	.4213	554.9	.2068-03	.2309-03
34	.40000	.90000	358.00	.8941-02	.1082-01	.1208-01	51.23	.4581	.4232	557.4	.1505-03	.1681-03
34	.50000	.90000	361.00	.1153-01	.1395-01	.1559-01	51.25	.5912	.4229	557.1	.1941-03	.2168-03
34	.60000	.70000	367.00	.1524-01	.1842-01	.2056-01	51.47	.7845	.4205	553.9	.2563-03	.2861-03
34	.60000	.90000	368.00	.1343-01	.1625-01	.1815-01	51.25	.6883	.4229	557.1	.2260-03	.2525-03
34	.70000	.70000	370.00	.1242-01	.1501-01	.1676-01	51.41	.6383	.4213	554.9	.2088-03	.2332-03
34	.80000	.70000	376.00	.1201-01	.1452-01	.1622-01	51.30	.6160	.4224	556.4	.2020-03	.2256-03
34	.80000	.90000	377.00	.1030-01	.1247-01	.1393-01	51.14	.5269	.4242	558.7	.1734-03	.1938-03
34	.90000	.70000	381.00	.1233-01	.1491-01	.1666-01	51.18	.6308	.4237	558.2	.2075-03	.2318-03
34	.90000	.90000	382.00	.1360-01	.1648-01	.1842-01	50.95	.6931	.4262	561.5	.2292-03	.2562-03

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(RAGV01)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
36	3.930	5.280	27.50	.0000	312.5	1293.	315.7	.4218	200.1	.1769-03	3660.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
36	.0000	.2855

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
36	.30000	.90000	352.00	.6387-02	.7705-02	.8592-02	52.64	.3362	.4156	546.8	.1055-03	.1177-03
36	.40000	.70000	357.00	.9552-02	.1152-01	.1284-01	52.79	.5043	.4140	544.6	.1578-03	.1759-03
36	.40000	.90000	358.00	.6108-02	.7370-02	.8220-02	52.60	.3213	.4160	547.3	.1010-03	.1126-03
36	.50000	.90000	361.00	.9061-02	.1093-01	.1219-01	52.62	.4768	.4159	547.1	.1497-03	.1670-03
36	.60000	.70000	367.00	.1493-01	.1800-01	.2006-01	52.85	.7893	.4134	543.8	.2466-03	.2749-03
36	.60000	.90000	368.00	.1142-01	.1377-01	.1536-01	52.61	.6005	.4160	547.2	.1987-03	.2104-03
36	.70000	.70000	370.00	.1764-01	.2128-01	.2372-01	52.78	.9311	.4142	544.9	.2914-03	.3249-03
36	.80000	.70000	376.00	.1988-01	.2398-01	.2674-01	52.66	1.047	.4155	546.6	.3285-03	.3663-03
36	.80000	.90000	377.00	.1671-01	.2017-01	.2250-01	52.50	.8774	.4171	548.8	.2763-03	.3082-03
36	.90000	.70000	381.00	.1415-01	.1707-01	.1904-01	52.54	.7433	.4167	548.2	.2339-03	.2608-03
36	.90000	.90000	382.00	.1657-01	.2002-01	.2234-01	52.30	.8665	.4193	551.6	.2741-03	.3059-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV01)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
38	3.803	5.280	30.00	.0000	308.5	1309.	319.8	.4160	202.7	.1722-03	3685.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2839
38	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
38	.30000	.90000	352.00	.4940-02	.5967-02	.6660-02	52.70	.2603	.4191	558.7	.8291-04	.9254-04
38	.40000	.70000	357.00	.5761-02	.6955-02	.7760-02	52.84	.3044	.4176	556.6	.9665-04	.1078-03
38	.40000	.90000	358.00	.3413-02	.4123-02	.4602-02	52.67	.1798	.4194	559.1	.5729-04	.6394-04
38	.50000	.90000	361.00	.4956-02	.5987-02	.6682-02	52.69	.2612	.4192	558.7	.8319-04	.9285-04
38	.60000	.70000	367.00	.1134-01	.1368-01	.1526-01	52.91	.5999	.4169	555.7	.1902-03	.2121-03
38	.60000	.90000	368.00	.8386-02	.1013-01	.1131-01	52.68	.4418	.4193	558.9	.1408-03	.1571-03
38	.70000	.70000	370.00	.1447-01	.1747-01	.1950-01	52.84	.7649	.4176	556.6	.2428-03	.2709-03
38	.80000	.70000	376.00	.1790-01	.2161-01	.2412-01	52.74	.9438	.4187	558.1	.3003-03	.3352-03
38	.80000	.90000	377.00	.1443-01	.1743-01	.1946-01	52.59	.7586	.4203	560.3	.2422-03	.2704-03
38	.90000	.70000	381.00	.1600-01	.1933-01	.2158-01	52.61	.8415	.4201	560.0	.2686-03	.2998-03
38	.90000	.90000	382.00	.1603-01	.1939-01	.2165-01	52.37	.8394	.4226	563.3	.2693-03	.3008-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

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(RAGV01)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPD8RK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
40	3.848	5.280	32.50	.0000	308.5	1299.	317.3	.4161	201.1	.1736-03	3670.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2837
40	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
40	.30000	.90000	352.00	.5612-02	.6788-02	.7583-02	51.90	.2913	.4230	559.3	.9386-04	.1048-03
40	.40000	.70000	357.00	.2994-02	.3620-02	.4042-02	52.05	.1558	.4214	557.3	.5005-04	.5589-04
40	.40000	.90000	358.00	.3262-02	.3947-02	.4410-02	51.85	.1692	.4235	560.0	.5457-04	.6097-04
40	.50000	.90000	361.00	.3168-02	.3833-02	.4282-02	51.86	.1643	.4234	559.9	.5299-04	.5920-04
40	.60000	.70000	367.00	.1021-01	.1234-01	.1378-01	52.07	.5317	.4211	556.8	.1707-03	.1906-03
40	.60000	.90000	368.00	.7107-02	.8600-02	.9608-02	51.84	.3684	.4237	560.2	.1189-03	.1328-03
40	.70000	.70000	370.00	.1402-01	.1695-01	.1893-01	51.98	.7286	.4221	558.1	.2343-03	.2617-03
40	.80000	.70000	376.00	.1653-01	.2000-01	.2235-01	51.86	.8575	.4233	559.8	.2765-03	.3090-03
40	.90000	.90000	377.00	.1369-01	.1657-01	.1852-01	51.70	.7079	.4251	562.1	.2291-03	.2561-03
40	.90000	.70000	381.00	.1331-01	.1611-01	.1800-01	51.71	.6880	.4250	562.0	.2227-03	.2489-03
40	.90000	.90000	382.00	.1332-01	.1614-01	.1805-01	51.48	.6856	.4275	565.3	.2231-03	.2495-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV01)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
42	3.817	5.280	34.10	.0000	307.3	1303.	318.2	.4144	201.7	.1724-03	3675.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2832
42	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
42	.30000	.90000	352.00	.4250-02	.5125-02	.5714-02	52.73	.2241	.4147	549.9	.7116-04	.7933-04
42	.40000	.70000	357.00	.2881-02	.3473-02	.3870-02	52.87	.1523	.4132	547.9	.4821-04	.5373-04
42	.40000	.90000	358.00	.3171-02	.3825-02	.4265-02	52.69	.1671	.4151	550.4	.5310-04	.5921-04
42	.50000	.90000	361.00	.3766-02	.4542-02	.5064-02	52.70	.1985	.4150	550.3	.6306-04	.7031-04
42	.60000	.70000	367.00	.1101-01	.1326-01	.1478-01	52.90	.5822	.4128	547.5	.1842-03	.2052-03
42	.60000	.90000	368.00	.8174-02	.9861-02	.1100-01	52.67	.4306	.4153	550.8	.1369-03	.1527-03
42	.70000	.70000	370.00	.1380-01	.1663-01	.1854-01	52.82	.7288	.4137	548.7	.2310-03	.2574-03
42	.80000	.70000	376.00	.1656-01	.1998-01	.2227-01	52.70	.8728	.4150	550.4	.2774-03	.3093-03
42	.80000	.90000	377.00	.1309-01	.1580-01	.1762-01	52.54	.6879	.4167	552.6	.2194-03	.2447-03
42	.90000	.70000	381.00	.1327-01	.1602-01	.1787-01	52.53	.6974	.4167	552.7	.2224-03	.2481-03
42	.90000	.90000	382.00	.1351-01	.1632-01	.1821-01	52.30	.7064	.4193	556.0	.2265-03	.2528-03

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(RAGV02)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
44	3.856	5.280	27.50	.0000	307.9	1296.	316.5	.4154	200.6	.1738-03	3665.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TM-540										
44	.0000	.2834										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
44	.30000	.90000	352.00	.5699-02	.6892-02	.7697-02	51.78	.2951	.4223	557.0	.9523-04	.1064-03
44	.40000	.70000	357.00	.9193-02	.1111-01	.1240-01	51.93	.4773	.4207	554.9	.1535-03	.1714-03
44	.40000	.90000	358.00	.5544-02	.6706-02	.7490-02	51.75	.2869	.4227	557.5	.9266-04	.1035-03
44	.50000	.90000	361.00	.8939-02	.1081-01	.1207-01	51.77	.4627	.4224	557.2	.1494-03	.1669-03
44	.60000	.70000	367.00	.1406-01	.1699-01	.1897-01	51.99	.7312	.4200	554.0	.2349-03	.2622-03
44	.60000	.90000	368.00	.1102-01	.1333-01	.1489-01	51.77	.5706	.4224	557.1	.1842-03	.2057-03
44	.70000	.70000	370.00	.1672-01	.2020-01	.2255-01	51.93	.8681	.4206	554.8	.2792-03	.3117-03
44	.80000	.70000	376.00	.1878-01	.2270-01	.2535-01	51.85	.9736	.4215	556.0	.3137-03	.3503-03
44	.80000	.90000	377.00	.1599-01	.1935-01	.2161-01	51.69	.8266	.4232	558.3	.2673-03	.2986-03
44	.90000	.70000	381.00	.1322-01	.1599-01	.1786-01	51.77	.6844	.4224	557.2	.2209-03	.2468-03
44	.90000	.90000	382.00	.1551-01	.1878-01	.2098-01	51.55	.7996	.4248	560.3	.2594-03	.2899-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV03)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
31	4.942	5.280	20.00	.0000	407.7	1323.	323.4	.5493	205.0	.2249-03	3705.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
31	.0000	.3266										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
31	.30000	.90000	352.00	.5406-02	.6496-02	.7225-02	62.90	.3400	.4043	544.9	.7912-04	.8800-04
31	.40000	.70000	357.00	.4558-02	.5473-02	.6084-02	63.16	.2878	.4020	541.8	.6667-04	.7411-04
31	.40000	.90000	358.00	.2520-02	.3029-02	.3370-02	62.82	.1583	.4050	545.9	.3689-04	.4104-04
31	.50000	.90000	361.00	.7022-02	.8440-02	.9388-02	62.83	.4412	.4049	545.8	.1028-03	.1143-03
31	.60000	.70000	367.00	.1587-01	.1905-01	.2117-01	63.22	1.003	.4014	541.0	.2321-03	.2579-03
31	.60000	.90000	368.00	.1225-01	.1473-01	.1639-01	62.81	.7696	.4052	546.1	.1794-03	.1996-03
31	.70000	.70000	370.00	.1970-01	.2366-01	.2630-01	63.09	1.243	.4026	542.6	.2882-03	.3204-03
31	.80000	.70000	376.00	.2809-01	.3376-01	.3755-01	62.88	1.766	.4045	545.2	.4112-03	.4574-03
31	.80000	.90000	377.00	.2116-01	.2546-01	.2833-01	62.62	1.325	.4069	548.5	.3100-03	.3450-03
31	.90000	.70000	381.00	.2126-01	.2556-01	.2844-01	62.70	1.333	.4062	547.5	.3113-03	.3464-03
31	.90000	.90000	382.00	.2394-01	.2882-01	.3210-01	62.32	1.492	.4096	552.1	.3510-03	.3908-03

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(RAGV03)

VERT. TAIL (60-O)

OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
33	5.078	5.280	22.50	.0000	408.1	1301.	317.9	.5505	201.5	.2293-03	3673.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3264										
33	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
33	.30000	.90000	352.00	.4139-02	.4997-02	.5575-02	.2500	.2500	.4176	553.3	.6015-04	.6710-04
33	.40000	.70000	357.00	.7171-02	.8651-02	.9646-02	.4346	.4346	.4155	550.5	.1041-03	.1161-03
33	.40000	.90000	358.00	.4883-02	.5897-02	.6580-02	.2945	.2945	.4184	554.3	.7098-04	.7920-04
33	.50000	.90000	361.00	.6975-02	.8422-02	.9397-02	.4208	.4208	.4182	554.1	.1014-03	.1131-03
33	.60000	.70000	367.00	.8573-02	.1034-01	.1153-01	.5201	.5201	.4150	549.8	.1245-03	.1388-03
33	.60000	.90000	368.00	.7137-02	.8619-02	.9617-02	.4303	.4303	.4185	554.5	.1037-03	.1158-03
33	.70000	.70000	370.00	.1388-01	.1675-01	.1868-01	.8403	.8403	.4162	551.4	.2016-03	.2249-03
33	.80000	.70000	376.00	.1834-01	.2214-01	.2771-01	1.107	1.107	.4180	553.7	.2665-03	.2974-03
33	.80000	.90000	377.00	.1482-01	.1791-01	.2000-01	.8912	.8912	.4202	556.7	.2156-03	.2407-03
33	.90000	.70000	381.00	.1870-01	.2260-01	.2523-01	1.125	1.125	.4197	556.1	.2720-03	.3036-03
33	.90000	.90000	382.00	.1625-01	.1965-01	.2195-01	.9717	.9717	.4230	560.4	.2365-03	.2642-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV03)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
35	4.988	5.280	25.00	.0000	407.4	1315.	321.3	.5492	203.6	.2263-03	3693.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
35	.0000	.3264										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
35	.30000	.90000	352.00	.5804-02	.6976-02	.7760-02	62.42	.3623	.4047	542.0	.8466-04	.9417-04
35	.40000	.70000	357.00	.1024-01	.1230-01	.1367-01	62.66	.6415	.4025	539.0	.1492-03	.1659-03
35	.40000	.90000	358.00	.5877-02	.7066-02	.7861-02	62.34	.3664	.4055	543.0	.8575-04	.9539-04
35	.50000	.90000	361.00	.1041-01	.1252-01	.1392-01	62.35	.6491	.4054	542.8	.1519-03	.1690-03
35	.60000	.70000	367.00	.1687-01	.2026-01	.2253-01	62.70	1.058	.4021	538.4	.2459-03	.2734-03
35	.60000	.90000	368.00	.1404-01	.1688-01	.1878-01	62.31	.8749	.4057	543.3	.2049-03	.2279-03
35	.70000	.70000	370.00	.1541-01	.1851-01	.2059-01	62.56	.9642	.4033	540.1	.2247-03	.2499-03
35	.80000	.70000	376.00	.1206-01	.1450-01	.1613-01	62.37	.7522	.4052	542.6	.1759-03	.1957-03
35	.80000	.90000	377.00	.1073-01	.1291-01	.1436-01	62.11	.6663	.4075	545.7	.1566-03	.1743-03
35	.90000	.70000	381.00	.1344-01	.1617-01	.1799-01	62.20	.8361	.4068	544.7	.1962-03	.2183-03
35	.90000	.90000	382.00	.1521-01	.1831-01	.2040-01	61.83	.9404	.4101	549.2	.2222-03	.2474-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV03)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
37	5.101	5.280	27.50	.0000	406.9	1295.	316.3	.5490	200.5	.2298-03	3664.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
37	.0000	.3258										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
37	.30000	.90000	352.00	.6793-02	.8222-02	.9188-02	59.24	.4024	.4246	559.7	.9878-04	.1104-03
37	.40000	.70000	357.00	.7687-02	.9297-02	.1039-01	59.46	.4571	.4225	556.9	.1117-03	.1248-03
37	.40000	.90000	358.00	.4902-02	.5935-02	.6633-02	59.16	.2900	.4253	560.6	.7129-04	.7969-04
37	.50000	.90000	361.00	.6993-02	.8466-02	.9462-02	59.18	.4139	.4251	560.3	.1017-03	.1137-03
37	.60000	.70000	367.00	.1405-01	.1699-01	.1897-01	59.51	.8361	.4220	556.3	.2041-03	.2280-03
37	.60000	.90000	368.00	.1071-01	.1297-01	.1450-01	59.15	.6336	.4254	560.7	.1558-03	.1741-03
37	.70000	.70000	370.00	.1694-01	.2049-01	.2289-01	59.38	1.006	.4232	557.9	.2462-03	.2750-03
37	.80000	.70000	376.00	.1982-01	.2399-01	.2681-01	59.21	1.173	.4249	560.0	.2882-03	.3221-03
37	.80000	.90000	377.00	.1673-01	.2027-01	.2267-01	58.97	.9867	.4271	563.0	.2435-03	.2723-03
37	.90000	.70000	381.00	.1475-01	.1786-01	.1997-01	59.01	.8703	.4267	562.4	.2146-03	.2399-03
37	.90000	.90000	382.00	.1686-01	.2044-01	.2288-01	58.68	.9893	.4298	566.6	.2456-03	.2748-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV03)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
39	5.112	5.280	30.00	.0000	408.0	1296.	316.4	.5505	200.5	.2303-03	3665.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
39	.0000	.3262										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
39	.30000	.90000	352.00	.5665-02	.6826-02	.7604-02	60.69	.3438	.4119	543.1	.8197-04	.9132-04
39	.40000	.70000	357.00	.4424-02	.5327-02	.5932-02	60.93	.2696	.4097	540.2	.6398-04	.7124-04
39	.40000	.90000	358.00	.3387-02	.4081-02	.4548-02	60.63	.2053	.4125	544.0	.4901-04	.5461-04
39	.50000	.90000	361.00	.3672-02	.4425-02	.4930-02	60.65	.2227	.4123	543.7	.5313-04	.5920-04
39	.60000	.70000	367.00	.1214-01	.1462-01	.1628-01	61.00	.7408	.4090	539.3	.1756-03	.1955-03
39	.60000	.90000	368.00	.8615-02	.1038-01	.1157-01	60.61	.5221	.4127	544.2	.1247-03	.1389-03
39	.70000	.70000	370.00	.1527-01	.1839-01	.2048-01	60.86	.9296	.4103	541.0	.2209-03	.2460-03
39	.80000	.70000	376.00	.1886-01	.2273-01	.2533-01	60.66	1.144	.4122	543.5	.2730-03	.3041-03
39	.80000	.90000	377.00	.1515-01	.1827-01	.2037-01	60.39	.9149	.4147	546.9	.2194-03	.2446-03
39	.90000	.70000	381.00	.1603-01	.1933-01	.2155-01	60.40	.9682	.4147	546.8	.2321-03	.2588-03
39	.90000	.90000	382.00	.1699-01	.2052-01	.2290-01	59.99	1.019	.4185	551.8	.2463-03	.2749-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

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(RAGV03)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
41	4.957	5.280	32.50	.0000	407.4	1320.	322.6	.5489	204.4	.2253-03	3700.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
41	.0000	.3264										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
41	.30000	.90000	352.00	.6157-02	.7402-02	.8236-02	62.56	.3852	.4057	545.4	.9005-04	.1002-03
41	.40000	.70000	357.00	.3047-02	.3651-02	.4071-02	62.81	.1914	.4034	542.3	.4454-04	.4953-04
41	.40000	.90000	358.00	.3470-02	.4173-02	.4643-02	62.47	.2168	.4065	546.4	.5076-04	.5649-04
41	.50000	.90000	361.00	.3739-02	.4497-02	.5004-02	62.48	.2336	.4064	546.3	.5470-04	.6087-04
41	.60000	.70000	367.00	.1139-01	.1368-01	.1522-01	62.83	.7158	.4032	542.0	.1665-03	.1851-03
41	.60000	.90000	368.00	.7445-02	.8955-02	.9965-02	62.43	.4648	.4069	547.0	.1089-03	.1212-03
41	.70000	.70000	370.00	.1492-01	.1793-01	.1994-01	62.68	.9351	.4045	543.8	.2181-03	.2426-03
41	.80000	.70000	376.00	.1671-01	.2010-01	.2237-01	62.47	1.044	.4065	546.5	.2445-03	.2721-03
41	.80000	.90000	377.00	.1430-01	.1721-01	.1916-01	62.21	.8893	.4089	549.7	.2093-03	.2330-03
41	.90000	.70000	381.00	.1372-01	.1652-01	.1839-01	62.24	.8542	.4086	549.3	.2009-03	.2237-03
41	.90000	.90000	382.00	.1390-01	.1675-01	.1866-01	61.86	.8599	.4121	554.0	.2037-03	.2270-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV03)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
43	5.087	5.280	34.10	.0000	405.6	1295.	316.2	.5473	200.4	.2292-03	3664.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3253										
43	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
43	.30000	.90000	352.00	.3953-02	.4772-02	.5324-02	59.92	.2369	.4171	549.7	.5744-04	.6407-04
43	.40000	.70000	357.00	.2874-02	.3466-02	.3865-02	60.16	.1729	.4149	546.8	.4173-04	.4652-04
43	.40000	.90000	358.00	.3932-02	.4748-02	.5297-02	59.86	.2354	.4177	550.5	.5714-04	.6375-04
43	.50000	.90000	361.00	.4745-02	.5728-02	.6391-02	59.87	.2841	.4176	550.3	.6895-04	.7692-04
43	.60000	.70000	367.00	.1184-01	.1427-01	.1591-01	60.21	.7127	.4144	546.1	.1718-03	.1916-03
43	.60000	.90000	368.00	.9234-02	.1115-01	.1244-01	59.84	.5525	.4179	550.8	.1342-03	.1497-03
43	.70000	.70000	370.00	.1526-01	.1841-01	.2052-01	60.09	.9168	.4155	547.6	.2215-03	.2470-03
43	.80000	.70000	376.00	.1838-01	.2219-01	.2475-01	59.92	.1101	.4172	549.8	.2670-03	.2979-03
43	.80000	.90000	377.00	.1588-01	.1918-01	.2141-01	59.67	.9475	.4196	552.9	.2309-03	.2577-03
43	.90000	.70000	381.00	.1436-01	.1734-01	.1935-01	59.73	.8575	.4189	552.1	.2087-03	.2329-03
43	.90000	.90000	382.00	.1583-01	.1914-01	.2138-01	59.37	.9398	.4223	556.6	.2303-03	.2573-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV04)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LB1	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
60	3.681	7.300	20.00	.0000	690.9	1313.	321.0	.1255	114.7	.9179-04	3833.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2157
60	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.950
60	.30000	.90000	352.00	.3606-02	.4341-02	.4834-02	40.89	.1475	.4092	547.4	.8272-04	.9210-04
60	.40000	.70000	357.00	.3530-02	.4247-02	.4728-02	40.98	.1447	.4080	545.8	.8093-04	.9009-04
60	.40000	.90000	358.00	.2819-02	.3393-02	.3777-02	40.91	.1153	.4090	547.1	.6464-04	.7197-04
60	.50000	.90000	361.00	.4506-02	.5423-02	.6038-02	40.94	.1845	.4086	546.6	.1033-03	.1150-03
60	.60000	.70000	367.00	.7808-02	.9393-02	.1045-01	41.03	.3204	.4073	544.9	.1790-03	.1992-03
60	.60000	.90000	368.00	.5991-02	.7090-02	.7892-02	40.95	.2412	.4085	546.4	.1351-03	.1504-03
60	.70000	.70000	370.00	.1213-01	.1460-01	.1625-01	41.02	.4977	.4075	545.1	.2781-03	.3096-03
60	.80000	.70000	376.00	.1242-01	.1494-01	.1663-01	40.99	.5091	.4078	545.6	.2847-03	.3169-03
60	.80000	.90000	377.00	.9855-02	.1186-01	.1320-01	40.95	.4036	.4084	546.3	.2260-03	.2516-03
60	.90000	.70000	381.00	.9485-02	.1141-01	.1270-01	40.97	.3886	.4082	546.0	.2175-03	.2421-03
60	.90000	.90000	382.00	.8671-02	.1044-01	.1162-01	40.90	.3547	.4091	547.3	.1989-03	.2214-03

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(RAGV04)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
61	3.721	7.300	25.00	.0000	691.0	1305.	318.8	.1256	114.0	.9247-04	3620.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
61	.0000	.2157										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
61	.30000	.90000	352.00	.4821-02	.5849-02	.6546-02	39.08	.1884	.4309	572.5	.1108-03	.1241-03
61	.40000	.70000	357.00	.6140-02	.7446-02	.8332-02	39.15	.2404	.4299	571.2	.1411-03	.1579-03
61	.40000	.90000	358.00	.5010-02	.6079-02	.6805-02	39.04	.1956	.4313	573.1	.1152-03	.1290-03
61	.50000	.90000	361.00	.6397-02	.7762-02	.8689-02	39.05	.2498	.4313	573.1	.1471-03	.1647-03
61	.70000	.70000	367.00	.9060-02	.1099-01	.1229-01	39.14	.3546	.4300	571.3	.2082-03	.2330-03
61	.60000	.90000	368.00	.7622-02	.9248-02	.1035-01	39.05	.2976	.4313	573.0	.1753-03	.1962-03
61	.70000	.70000	370.00	.1208-01	.1466-01	.1640-01	39.09	.4723	.4306	572.2	.2778-03	.3109-03
61	.80000	.70000	376.00	.1362-01	.1653-01	.1850-01	39.04	.5319	.4313	573.1	.3132-03	.3507-03
61	.80000	.90000	377.00	.1208-01	.1467-01	.1642-01	38.99	.4711	.4321	574.2	.2779-03	.3111-03
61	.90000	.70000	381.00	.9082-02	.1102-01	.1234-01	38.97	.3539	.4324	574.6	.2089-03	.2339-03
61	.90000	.90000	382.00	.9767-02	.1186-01	.1328-01	38.91	.3800	.4332	575.6	.2247-03	.2517-03

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VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV04)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
62	3.640	7.300	27.50	.0000	691.7	1323.	323.6	.1256	115.7	.9112-04	3848.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
62	.0000	.2160

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
62	.30000	.90000	352.00	.2872-02	.3441-02	.3819-02	42.27	.1214	.3953	533.1	.6589-04	.7314-04
62	.40000	.70000	357.00	.6671-02	.7990-02	.8867-02	42.34	.2825	.3943	531.7	.1530-03	.1698-03
62	.40000	.90000	358.00	.5133-02	.6150-02	.6826-02	42.28	.2170	.3952	532.9	.1178-03	.1307-03
62	.50000	.90000	361.00	.7356-02	.8812-02	.9780-02	42.30	.3112	.3949	532.5	.1688-03	.1873-03
62	.60000	.70000	367.00	.9050-02	.1084-01	.1203-01	42.38	.3835	.3938	531.1	.2076-03	.2303-03
62	.60000	.90000	368.00	.7337-02	.8791-02	.9757-02	42.29	.3103	.3951	532.8	.1684-03	.1869-03
62	.70000	.70000	370.00	.1179-01	.1412-01	.1567-01	42.36	.4994	.3941	531.4	.2704-03	.3001-03
62	.80000	.70000	376.00	.1417-01	.1697-01	.1883-01	42.32	.5995	.3946	532.1	.3250-03	.3607-03
62	.80000	.90000	377.00	.1134-01	.1358-01	.1508-01	42.28	.4793	.3952	532.9	.2601-03	.2887-03
62	.90000	.70000	381.00	.1130-01	.1354-01	.1503-01	42.27	.4778	.3954	533.2	.2594-03	.2879-03
62	.90000	.90000	382.00	.1055-01	.1265-01	.1404-01	42.19	.4451	.3965	534.7	.2422-03	.2689-03

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(RAGV04)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
63	3.740	7.300	30.00	.0000	692.3	1303.	318.2	.1258	113.8	.9284-04	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
63	.0000	.2158

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
63	.30000	.90000	352.00	.1658-02	.1998-02	.2226-02	40.39	.6698-01	.4118	545.1	.3782-04	.4214-04
63	.40000	.70000	357.00	.4717-02	.5681-02	.6328-02	40.47	.1909	.4106	544.6	.1076-03	.1198-03
63	.40000	.90000	358.00	.3690-02	.4445-02	.4953-02	40.39	.1490	.4117	545.9	.8415-04	.9375-04
63	.50000	.90000	361.00	.5364-02	.6461-02	.7197-02	40.43	.2169	.4112	545.3	.1223-03	.1362-03
63	.60000	.70000	367.00	.8632-02	.1039-01	.1157-01	40.52	.3498	.4098	543.5	.1968-03	.2191-03
63	.60000	.90000	368.00	.7061-02	.8505-02	.9474-02	40.43	.2855	.4112	545.2	.1610-03	.1793-03
63	.70000	.70000	370.00	.1168-01	.1406-01	.1566-01	40.50	.4730	.4102	544.0	.2663-03	.2965-03
63	.80000	.70000	376.00	.1360-01	.1638-01	.1824-01	40.46	.5502	.4107	544.7	.3100-03	.3453-03
63	.80000	.90000	377.00	.1075-01	.1295-01	.1443-01	40.41	.4345	.4114	545.6	.2452-03	.2731-03
63	.90000	.70000	381.00	.9756-02	.1175-01	.1309-01	40.39	.3941	.4117	545.9	.2225-03	.2479-03
63	.90000	.90000	382.00	.1007-01	.1214-01	.1353-01	40.32	.4061	.4127	547.3	.2298-03	.2560-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV05)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
67	8.624	7.300	20.00	.0000	1670.	1338.	327.4	.3029	117.0	.2172-03	3871.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TH=540
67	.0000	.3358

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
67	.30000	.90000	352.00	.3726-02	.4473-02	.4971-02	65.80	.2451	.4013	547.6	.5551-04	.6170-04
67	.40000	.70000	357.00	.2460-02	.2952-02	.3280-02	65.96	.1622	.4000	545.8	.3684-04	.4071-04
67	.40000	.90000	358.00	.1963-02	.2357-02	.2620-02	65.76	.1291	.4017	548.1	.2926-04	.3252-04
67	.50000	.90000	361.00	.2889-02	.3468-02	.3855-02	65.79	.1901	.4014	547.7	.4305-04	.4785-04
67	.60000	.70000	367.00	.7410-02	.8891-02	.9878-02	66.01	.4892	.3995	545.1	.1104-03	.1226-03
67	.60000	.90000	368.00	.5745-02	.6898-02	.7667-02	65.76	.3778	.4017	548.2	.8561-04	.9516-04
67	.70000	.70000	370.00	.1278-01	.1533-01	.1704-01	65.95	.8426	.4000	545.8	.1903-03	.2115-03
67	.80000	.70000	376.00	.1421-01	.1706-01	.1896-01	65.84	.9357	.4010	547.2	.2117-03	.2353-03
67	.80000	.90000	377.00	.1038-01	.1247-01	.1386-01	65.72	.6823	.4021	548.6	.1547-03	.1720-03
67	.90000	.70000	381.00	.9560-02	.1160-01	.1290-01	65.72	.6349	.4021	548.6	.1440-03	.1600-03
67	.90000	.90000	382.00	.9166-02	.1101-01	.1225-01	65.52	.6006	.4038	551.0	.1367-03	.1520-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV05)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
66	9.029	7.300	25.00	.0000	1667.	1301.	317.6	.3031	113.6	.2240-03	3813.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
66	.0000	.3349										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
66	.30000	.90000	352.00	.3702-02	.4475-02	.4997-02	61.55	.2279	.4209	557.2	.5451-04	.6086-04
66	.40000	.70000	357.00	.7052-02	.8520-02	.9510-02	61.71	.4352	.4195	555.4	.1038-03	.1158-03
66	.40000	.90000	358.00	.4393-02	.5310-02	.5928-02	61.56	.2704	.4209	557.1	.6467-04	.7221-04
66	.50000	.90000	361.00	.6785-02	.8199-02	.9153-02	61.62	.4181	.4203	556.4	.9987-04	.1115-03
66	.60000	.70000	367.00	.1096-01	.1324-01	.1477-01	61.83	.6776	.4184	553.9	.1612-03	.1799-03
66	.60000	.90000	368.00	.8059-02	.9737-02	.1087-01	61.62	.4965	.4203	556.4	.1186-03	.1324-03
66	.70000	.70000	370.00	.1222-01	.1476-01	.1647-01	61.78	.7549	.4188	554.4	.1798-03	.2006-03
66	.80000	.70000	376.00	.1235-01	.1492-01	.1665-01	61.70	.7620	.4196	555.4	.1818-03	.2029-03
66	.80000	.90000	377.00	.1079-01	.1304-01	.1456-01	61.56	.6642	.4208	557.1	.1588-03	.1773-03
66	.90000	.70000	381.00	.7758-02	.9377-02	.1047-01	61.58	.4778	.4206	556.9	.1142-03	.1275-03
66	.90000	.90000	382.00	.8458-02	.1023-01	.1142-01	61.39	.5192	.4224	559.2	.1246-03	.1391-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV05)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
65	9.048	7.300	27.50	.0000	1672.	1301.	317.9	.3040	113.6	.2245-03	3814.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3354
65	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
65	.30000	.90000	352.00	.3767-02	.4553-02	.5083-02	61.72	.2325	.4207	557.4	.5539-04	.6184-04
65	.40000	.70000	357.00	.6234-02	.7532-02	.8406-02	61.85	.3856	.4196	555.8	.9163-04	.1023-03
65	.40000	.90000	358.00	.3824-02	.4623-02	.5161-02	61.70	.2359	.4209	557.7	.5624-04	.6279-04
65	.50000	.90000	361.00	.6275-02	.7584-02	.8468-02	61.71	.3872	.4208	557.5	.9227-04	.1030-03
65	.60000	.70000	367.00	.8765-02	.1059-01	.1182-01	61.89	.5425	.4192	555.3	.1288-03	.1438-03
65	.60000	.90000	368.00	.6258-02	.8411-02	.9391-02	61.68	.4291	.4211	557.9	.1023-03	.1142-03
65	.70000	.70000	370.00	.1081-01	.1306-01	.1457-01	61.82	.6680	.4198	556.1	.1588-03	.1773-03
65	.80000	.70000	375.00	.1334-01	.1613-01	.1801-01	61.73	.8237	.4206	557.3	.1962-03	.2191-03
65	.80000	.90000	377.00	.1079-01	.1305-01	.1458-01	61.60	.6649	.4218	558.8	.1588-03	.1773-03
65	.90000	.70000	381.00	.1016-01	.1228-01	.1372-01	61.57	.6253	.4221	559.2	.1494-03	.1668-03
65	.90000	.90000	382.00	.1003-01	.1214-01	.1356-01	61.37	.6156	.4239	561.5	.1476-03	.1650-03

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OH110 (ARC3.5HJT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGV05)

VERT. TAIL (60-O)

OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
64	8.886	7.300	30.00	.0000	1678.	1318.	322.3	.3048	115.2	.2220-03	3840.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3363
54	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
64	.30000	.90000	352.00	.2140-02	.2573-02	.2863-02	64.38	.1378	.4058	545.0	.3154-04	.3509-04
64	.40000	.70000	357.00	.1730-02	.2079-02	.2313-02	64.53	.1117	.4045	543.2	.2849-04	.2835-04
64	.40000	.90000	358.00	.2473-02	.2974-02	.3309-02	64.36	.1592	.4060	545.3	.3645-04	.4056-04
64	.50000	.90000	361.00	.2648-02	.3184-02	.3542-02	64.38	.1705	.4059	545.1	.3902-04	.4342-04
64	.60000	.70000	367.00	.6592-02	.7922-02	.8810-02	64.58	.4258	.4040	542.6	.9711-04	.1080-03
64	.60000	.90000	368.00	.3890-02	.4678-02	.5205-02	64.35	.2503	.4061	545.4	.5734-04	.6380-04
64	.70000	.70000	370.00	.9271-02	.1114-01	.1239-01	64.51	.5981	.4047	543.5	.1366-03	.1519-03
64	.80000	.70000	376.00	.1141-01	.1372-01	.1526-01	64.41	.7349	.4056	544.7	.1682-03	.1871-03
64	.80000	.90000	377.00	.9532-02	.1143-01	.1272-01	64.27	.6107	.4068	546.4	.1401-03	.1559-03
64	.90000	.70000	381.00	.7535-02	.9063-02	.1009-01	64.26	.4941	.4069	546.5	.1111-03	.1236-03
64	.90000	.90000	382.00	.7143-02	.8597-02	.9571-02	64.05	.4575	.4088	549.0	.1054-03	.1173-03

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(RAGV06)

VERT. TAIL (60-O)

OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	PHI DEG.	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
47	3.778		5.280	20.00	.0000	308.4	1314.	321.2	.4157	203.6	.1714-03	3682.	.1750-01
47			HS SPHERE TN=540 .2839										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
47	.30000	.90000	357.00	.8605-01	.1038	.1157	53.30	4.586	.4152	555.7	.1447-02	.1613-02
47	.40000	.70000	357.00	.7419-01	.8939-01	.9959-01	53.62	3.978	.4118	551.2	.1246-02	.1388-02
47	.40000	.90000	358.00	.6898-01	.8318-01	.9273-01	53.38	3.682	.4143	554.6	.1159-02	.1292-02
47	.50000	.90000	361.00	.7306-01	.8807-01	.9814-01	53.50	3.909	.4130	552.8	.1228-02	.1368-02
47	.70000	.70000	367.00	.1365	.1668	.1858	53.76	7.449	.4102	549.1	.2326-02	.2590-02
47	.60000	.90000	368.00	.1214	.1463	.1631	53.57	6.505	.4123	551.9	.2040-02	.2273-02
47	.70000	.70000	370.00	.1291	.1555	.1732	53.73	6.936	.4105	549.5	.2167-02	.2414-02
47	.80000	.70000	376.00	.1346	.1621	.1806	53.65	7.221	.4114	550.7	.2260-02	.2518-02
47	.80000	.90000	377.00	.1330	.1602	.1786	53.52	7.116	.4128	552.5	.2234-02	.2489-02
47	.90000	.70000	381.00	.3978-01	.4794-01	.5342-01	53.51	2.128	.4129	552.7	.6682-03	.7447-03
47	.90000	.90000	382.00	.3589-01	.4331-01	.4830-01	53.22	1.910	.4160	556.8	.6035-03	.6731-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV06)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TI DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
43	3.836	5.280	25.00	.0000	307.7	1300.	317.5	.4151	201.2	.1731-03	3671.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2834
48	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
48	.30000	.90000	352.00	.5136-01	.6200-01	.6916-01	52.42	2.692	.4170	551.7	.8588-03	.9580-03
48	.40000	.70000	357.00	.1120	.1350	.1505	52.74	5.905	.4136	547.2	.1870-02	.2085-02
48	.40000	.90000	358.00	.5517-01	.6657-01	.7424-01	52.50	2.896	.4161	550.6	.9222-03	.1028-02
48	.50000	.90000	361.00	.6793-01	.8194-01	.9135-01	52.62	3.575	.4148	548.8	.1135-02	.1266-02
48	.60000	.70000	367.00	.1255	.1513	.1685	52.87	6.638	.4121	545.2	.2096-02	.2335-02
48	.60000	.90000	368.00	.8987-01	.1072	.1195	52.67	4.681	.4143	548.1	.1485-02	.1655-02
48	.70000	.70000	370.00	.1208	.1456	.1622	52.84	6.383	.4125	545.8	.2017-02	.2248-02
48	.80000	.70000	376.00	.1434	.1729	.1927	52.74	7.564	.4135	547.0	.2395-02	.2670-02
48	.80000	.90000	377.00	.1281	.1545	.1723	52.62	6.742	.4148	548.8	.2141-02	.2386-02
48	.90000	.70000	381.00	.2626-01	.3168-01	.3533-01	52.59	1.381	.4152	549.3	.4389-03	.4894-03
48	.90000	.90000	382.00	.2782-01	.3360-01	.3749-01	52.29	1.455	.4184	553.5	.4654-03	.5193-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
77	3.790	5.280	27.50	.0000	313.6	1325.	324.1	.4225	205.4	.1726-03	3709.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
77	.0000	.2865

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
77	.30000	.90000	352.00	.3946-01	.4755-01	.5298-01	54.55	2.153	.4120	556.4	.6609-03	.7363-03
77	.40000	.70000	357.00	.8794-01	.1053	.1178	54.93	4.831	.4081	551.1	.1471-02	.1637-02
77	.40000	.90000	358.00	.4411-01	.5314-01	.5919-01	54.64	2.410	.4111	555.2	.7385-03	.8227-03
77	.50000	.90000	361.00	.5461-01	.6574-01	.7321-01	54.78	2.992	.4096	553.1	.9138-03	.1018-02
77	.60000	.70000	367.00	.1095	.1316	.1465	55.09	6.030	.4054	548.9	.1830-02	.2036-02
77	.60000	.90000	368.00	.6946-01	.8360-01	.9307-01	54.85	3.810	.4089	552.2	.1162-02	.1294-02
77	.70000	.70000	370.00	.1155	.1389	.1545	55.05	6.356	.4068	549.4	.1931-02	.2148-02
77	.80000	.70000	376.00	.1197	.1440	.1603	54.97	6.580	.4077	550.6	.2002-02	.2228-02
77	.80000	.90000	377.00	.1018	.1225	.1364	54.83	5.580	.4091	552.5	.1703-02	.1896-02
77	.90000	.70000	381.00	.2727-01	.3285-01	.3559-01	54.66	1.491	.4109	555.0	.4566-03	.5086-03
77	.90000	.90000	382.00	.2970-01	.3582-01	.3994-01	54.31	1.613	.4146	559.9	.4978-03	.5550-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

(RAGV06)

VERT. TAIL (60-O)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
80	3.879	5.280	30.00	.0000	310.1	1297.	316.8	.4184	200.8	.1749-03	3667.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2845										
80	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
80	.30000	.90000	352.00	.2916-01	.3540-01	.3964-01	51.08	1.489	.4324	570.9	.4873-03	.5457-03
80	.40000	.70000	357.00	.5598-01	.6787-01	.7594-01	51.37	2.876	.4293	566.7	.9346-03	.1046-02
80	.40000	.90000	358.00	.3222-01	.3909-01	.4376-01	51.16	1.648	.4315	569.7	.5382-03	.6025-03
80	.50000	.90000	361.00	.3874-01	.4699-01	.5259-01	51.29	1.987	.4302	567.9	.6470-03	.7241-03
80	.60000	.70000	367.00	.8052-01	.9755-01	.1091	51.55	4.150	.4274	564.2	.1343-02	.1502-02
80	.60000	.90000	368.00	.4822-01	.5847-01	.6541-01	51.37	2.477	.4293	566.7	.8051-03	.9008-03
80	.70000	.70000	370.00	.8691-01	.1053	.1178	51.54	4.479	.4275	564.4	.1450-02	.1622-02
80	.80000	.70000	376.00	.9081-01	.1101	.1231	51.49	4.676	.4280	565.1	.1516-02	.1695-02
80	.80000	.90000	377.00	.7826-01	.9489-01	.1062	51.37	4.020	.4293	566.8	.1307-02	.1462-02
80	.90000	.70000	381.00	.2527-01	.3065-01	.3429-01	51.31	1.297	.4299	567.5	.4220-03	.4722-03
80	.90000	.90000	382.00	.2513-01	.3051-01	.3416-01	51.03	1.282	.4329	571.6	.4200-03	.4704-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV07)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
46	4.929	5.280	20.00	.0000	415.3	1340.	327.9	.5589	207.8	.2257-03	3731.	.1750-01
46	PHI DEG.	HS SPHERE TW=54U .3299										
46	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
46	.30000	.90000	352.00	.6986-01	.8405-01	.9355-01	64.04	4.474	.4077	557.1	.1023-02	.1139-02
46	.40000	.70000	357.00	.9376-01	.1126	.1252	64.66	6.062	.4021	549.5	.1371-02	.1524-02
46	.40000	.90000	358.00	.6618-01	.7959-01	.8856-01	64.17	4.247	.4065	555.5	.9687-03	.1078-02
46	.50000	.90000	361.00	.7560-01	.9085-01	.1010	64.42	4.871	.4042	552.4	.1106-02	.1230-02
46	.60000	.70000	367.00	.1639	.1967	.2185	64.92	10.64	.3998	546.3	.2394-02	.2660-02
46	.60000	.90000	368.00	.1391	.1671	.1858	64.53	8.976	.4033	551.1	.2034-02	.2262-02
46	.70000	.70000	370.00	.1656	.1997	.2208	64.85	10.74	.4004	547.2	.2420-02	.2689-02
46	.80000	.70000	376.00	.1623	.1943	.2166	64.66	10.49	.4020	549.5	.2372-02	.2637-02
46	.80000	.90000	377.00	.1738	.2088	.2322	64.44	11.20	.4041	552.2	.2542-02	.2827-02
46	.90000	.70000	381.00	.4315-01	.5192-01	.5780-01	64.00	2.762	.4079	557.5	.6319-03	.7034-03
46	.90000	.90000	382.00	.3017-01	.3636-01	.4052-01	63.47	1.915	.4127	564.0	.4424-03	.4930-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV07)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
49	5.104	5.280	25.00	.0000	407.8	1297.	316.7	.5503	200.7	.2301-03	3666.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TK=540										
49	.0000	.3262										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	ODOT BTU/ FT ² SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
49	.30000	.90000	352.00	.4770-01	.5758-01	.6424-01	60.13	2.868	.4176	551.1	.6917-03	.7717-03
49	.40000	.70000	357.00	.1058	.1275	.1421	60.63	6.414	.4129	544.9	.1532-02	.1708-02
49	.40000	.90000	358.00	.5300-01	.6396-01	.7134-01	60.25	3.193	.4164	549.6	.7684-03	.8570-03
49	.50000	.90000	361.00	.6687-01	.8065-01	.8992-01	60.44	4.042	.4146	547.2	.9690-03	.1080-02
49	.60000	.70000	367.00	.1270	.1529	.1703	60.85	7.726	.4108	542.1	.1838-02	.2047-02
49	.60000	.90000	368.00	.8655-01	.1043	.1163	60.55	5.241	.4136	545.9	.1254-02	.1397-02
49	.70000	.70000	370.00	.1353	.1629	.1815	60.80	8.224	.4113	542.8	.1958-02	.2181-02
49	.80000	.70000	376.00	.1489	.1794	.1999	60.67	9.033	.4125	544.3	.2156-02	.2402-02
49	.80000	.90000	377.00	.1254	.1512	.1686	60.48	7.585	.4143	546.8	.1817-02	.2026-02
49	.90000	.70000	381.00	.3044-01	.3673-01	.4096-01	60.26	1.834	.4163	549.4	.4412-03	.4921-03
49	.90000	.90000	382.00	.2893 01	.3497-01	.3904-01	59.79	1.730	.4208	555.3	.4200-03	.4689-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV07)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
78	5.048	5.280	27.50	.0000	409.5	1309.	319.8	.5521	202.7	.2286-03	3684.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
78	.0000	.3271										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
78	.30000	.90000	352.00	.3852-01	.4675-01	.5234-01	59.33	2.286	.4319	575.6	.5635-03	.6308-03
78	.40000	.70000	357.00	.8317-01	.1032	.1154	59.80	5.093	.4276	569.9	.1244-02	.1391-02
78	.40000	.90000	358.00	.4083-01	.4954-01	.5545-01	59.44	2.427	.4308	574.2	.5971-03	.6683-03
78	.50000	.90000	361.00	.4624-01	.5607-01	.6273-01	59.61	2.757	.4293	572.1	.6758-03	.7561-03
78	.60000	.70000	367.00	.1044	.1264	.1413	60.01	6.266	.4256	567.3	.1524-02	.1704-02
78	.60000	.90000	368.00	.5749-01	.6968-01	.7794-01	59.72	3.434	.4282	570.7	.8400-03	.9396-03
78	.70000	.70000	370.00	.1134	.1373	.1535	59.99	6.804	.4258	567.5	.1656-02	.1851-02
78	.80000	.70000	376.00	.1223	.1481	.1656	59.90	7.323	.4266	568.6	.1785-02	.1996-02
78	.80000	.90000	377.00	.9460-01	.1147	.1283	59.70	5.647	.4285	571.1	.1382-02	.1546-02
78	.90000	.70000	381.00	.2862-01	.3591-01	.4018-01	59.58	1.765	.4296	572.5	.4329-03	.4843-03
78	.90000	.90000	382.00	.3101-01	.3766-01	.4218-01	59.13	1.834	.4337	578.1	.4538-03	.5084-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV07)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT x10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
79	4.997	5.280	30.00	.0000	408.0	1314.	321.2	.5499	203.6	.2267-03	3692.	.1750-01

RUN NUMBER	PHI DEG.	H5 SPHERE TW=540 .3266
79	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
79	.30000	.90000	352.00	.2782-01	.3374-01	.3775-01	59.73	1.662	.4297	575.2	.4085-03	.4571-03
79	.40000	.70000	357.00	.5779-01	.6999-01	.7823-01	60.16	3.477	.4257	569.8	.8475-03	.9473-03
79	.40000	.90000	358.00	.3142-01	.3809-01	.4261-01	59.82	1.880	.4288	574.1	.4612-03	.5159-03
79	.50000	.90000	361.00	.3719-01	.4506-01	.5039-01	59.98	2.231	.4274	572.1	.5456-03	.6102-03
79	.60000	.70000	367.00	.7650-01	.9257-01	.1034	60.35	4.617	.4239	567.5	.1121-02	.1253-02
79	.60000	.90000	368.00	.4557-01	.5519-01	.6170-01	60.09	2.738	.4264	570.8	.6683-03	.7472-03
79	.70000	.70000	370.00	.8422-01	.1019	.1139	60.31	5.079	.4244	568.1	.1234-02	.1379-02
79	.80000	.70000	376.00	.9251-01	.1120	.1252	60.21	5.570	.4253	569.3	.1356-02	.1516-02
79	.80000	.90000	377.00	.7398-01	.8963-01	.1002	60.02	4.441	.4270	571.6	.1085-02	.1214-02
79	.90000	.70000	381.00	.2588-01	.3138-01	.3510-01	59.83	1.549	.4288	574.0	.3799-03	.4250-03
79	.90000	.90000	382.00	.2467-01	.2995-01	.3354-01	59.39	1.465	.4328	579.4	.3625-03	.4060-03

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)PAGE 179
(RAGV08)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
81	5.114	5.280	25.00	.0000	407.8	1295.	316.2	.5502	200.4	.2304-03	3664.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3251										
81	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
81	.30000	.90000	352.00	.5002-01	.6097-01	.6846-01	57.33	2.868	.4430	583.8	.7308-03	.8206-03
81	.40000	.70000	357.00	.1126	.1371	.1537	57.73	6.501	.4393	578.9	.1643-02	.1843-02
81	.40000	.90000	358.00	.5473-01	.6668-01	.7486-01	57.42	3.143	.4422	582.7	.7993-03	.8973-03
81	.50000	.90000	361.00	.7094-01	.8638-01	.9693-01	57.57	4.084	.4407	580.8	.1036-02	.1162-02
81	.60000	.70000	367.00	.1364	.1653	.1860	57.94	7.903	.4373	576.3	.1989-02	.2230-02
81	.60000	.90000	368.00	.6981-01	.1093	.1226	57.68	5.181	.4397	579.5	.1311-02	.1470-02
81	.70000	.70000	370.00	.1411	.1717	.1925	57.90	8.172	.4377	576.8	.2058-02	.2308-02
81	.80000	.70000	376.00	.1578	.1920	.2153	57.82	9.125	.4384	577.8	.2302-02	.2582-02
81	.80000	.90000	377.00	.1269	.1545	.1734	57.64	7.316	.4401	580.0	.1853-02	.2079-02
81	.90000	.70000	381.00	.3011-01	.3668-01	.4117-01	57.48	1.731	.4416	582.0	.4396-03	.4935-03
81	.90000	.90000	382.00	.2793-01	.3407-01	.3828-01	57.09	1.594	.4453	586.9	.4083-03	.4587-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV09)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
51	3.337	7.300	20.00	.0000	693.8	1397.	342.5	.1254	122.4	.8596-04	3959.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
51	.0000	.2171										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
51	.30000	.90000	352.00	.5174-01	.6174-01	.6835-01	45.89	2.375	.3826	546.1	.1224-02	.1355-02
51	.40000	.70000	357.00	.1777-01	.2120-01	.2346-01	45.97	.8170	.3815	544.6	.4202-03	.4650-03
51	.40000	.90000	358.00	.4031-01	.4810-01	.5324-01	45.91	1.851	.3823	545.7	.9533-03	.1055-02
51	.50000	.90000	361.00	.4693-01	.5599-01	.6197-01	45.95	2.156	.3819	545.1	.1110-02	.1228-02
51	.60000	.70000	367.00	.6581-01	.7849-01	.8685-01	46.01	3.028	.3810	543.9	.1556-02	.1722-02
51	.60000	.90000	368.00	.4011-01	.4786-01	.5297-01	45.95	1.843	.3819	545.1	.9483-03	.1050-02
51	.70000	.70000	370.00	.1077	.1285	.1422	45.99	4.953	.3813	544.3	.2546-02	.2818-02
51	.80000	.70000	376.00	.6739-01	.8039-01	.8998-01	45.94	3.096	.3820	545.2	.1593-02	.1764-02
51	.80000	.90000	377.00	.1026	.1224	.1355	45.90	4.708	.3824	545.9	.2426-02	.2685-02
51	.90000	.70000	381.00	.1562-01	.1865-01	.2055-01	45.80	.7155	.3838	547.8	.3696-03	.4092-03
51	.90000	.90000	382.00	.1892-01	.2260-01	.2503-01	45.71	.8649	.3850	549.5	.4478-03	.4959-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV09)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
52	3.394	7.300	25.00	.0000	692.9	1382.	338.6	.1254	121.0	.8693-04	3936.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TI=540										
52	.0000	.2168										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
52	.30000	.90000	352.00	.4733-01	.5672-01	.6297-01	44.27	2.095	.3964	559.3	.1116-02	.1239-02
52	.40000	.70000	357.00	.2576-01	.3086-01	.3425-01	44.40	1.144	.3947	556.9	.6073-03	.6740-03
52	.40000	.90000	358.00	.3674-01	.4402-01	.4887-01	44.31	1.628	.3959	558.6	.8662-03	.9616-03
52	.50000	.90000	361.00	.3428-01	.4107-01	.4558-01	44.37	1.521	.3951	557.5	.8081-03	.8969-03
52	.60000	.70000	367.00	.3999-01	.4789-01	.5314-01	44.47	1.779	.3937	555.5	.9424-03	.1046-02
52	.60000	.90000	368.00	.3504-01	.4198-01	.4659-01	44.38	1.555	.3949	557.3	.8260-03	.9168-03
52	.70000	.70000	370.00	.6274-01	.7515-01	.8339-01	44.44	2.788	.3942	556.2	.1479-02	.1641-02
52	.80000	.70000	376.00	.7289-01	.8733-01	.9694-01	44.34	3.232	.3954	557.9	.1718-02	.1907-02
52	.80000	.90000	377.00	.6449-01	.7728-01	.8579-01	44.30	2.857	.3950	558.8	.1521-02	.1688-02
52	.90000	.70000	381.00	.1350-01	.1618-01	.1796-01	44.22	.5968	.3970	560.2	.3183-03	.3534-03
52	.90000	.90000	382.00	.1320-01	.1583-01	.1759-01	44.13	.5826	.3982	561.9	.3115-03	.3460-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV09)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
53	3.675	7.300	27.50	.0000	691.4	1315.	321.5	.1256	114.9	.9171-04	3836.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TM=540 .2158										
53	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
53	.30000	.90000	352.00	.2489-01	.2989-01	.3322-01	41.47	1.032	.4023	539.1	.5700-03	.6336-03
53	.40000	.70000	357.00	.2525-01	.3031-01	.3369-01	41.54	1.049	.4013	537.7	.5781-03	.6425-03
53	.40000	.90000	358.00	.3786-01	.4546-01	.5053-01	41.50	1.571	.4020	538.6	.8670-03	.9638-03
53	.50000	.90000	361.00	.3578-01	.4296-01	.4775-01	41.52	1.486	.4017	538.1	.8194-03	.9108-03
53	.60000	.70000	367.00	.3429-01	.4116-01	.4574-01	41.57	1.425	.4010	537.2	.7850-03	.8724-03
53	.60000	.90000	368.00	.2902-01	.3485-01	.3873-01	41.52	1.205	.4017	538.2	.6646-03	.7388-03
53	.70000	.70000	370.00	.5319-01	.6385-01	.7096-01	41.56	2.210	.4012	537.5	.1218-02	.1353-02
53	.80000	.70000	376.00	.6726-01	.8076-01	.8977-01	41.52	2.793	.4016	538.1	.1540-02	.1712-02
53	.80000	.90000	377.00	.5642-01	.6775-01	.7531-01	41.49	2.341	.4021	538.7	.1292-02	.1436-02
53	.90000	.70000	381.00	.1435-01	.1724-01	.1916-01	41.45	.5948	.4027	539.5	.3287-03	.3655-03
53	.90000	.90000	382.00	.1306-01	.1569-01	.1745-01	41.37	.5404	.4037	540.9	.2993-03	.3328-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0

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(RAGV09)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
56	3.709	7.300	30.00	.0000	690.1	1307.	319.2	.1254	114.1	.9223-04	3822.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
56	.0000	.2155										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
56	.30000	.90000	352.00	.2082-01	.2516-01	.2809-01	39.81	.8286	.4210	560.0	.4777-03	.5334-03
56	.40000	.70000	357.00	.1738-01	.2100-01	.2344-01	35.89	.8335	.4197	558.4	.3988-03	.4452-03
56	.40000	.90000	358.00	.3049-01	.3684-01	.4113-01	39.84	1.215	.4205	559.4	.6996-03	.7810-03
56	.50000	.90000	361.00	.3606-01	.4357-01	.4863-01	39.89	1.438	.4198	558.5	.8272-03	.9234-03
56	.60000	.70000	367.00	.3177-01	.3838-01	.4282-01	39.96	1.270	.4187	557.1	.7287-03	.8132-03
56	.60000	.90000	368.00	.3139-01	.3792-01	.4232-01	39.90	1.252	.4196	558.2	.7201-03	.8037-03
56	.70000	.70000	370.00	.4856-01	.5865-01	.6545-01	39.95	1.940	.4189	557.3	.1114-02	.1243-02
56	.80000	.70000	376.00	.5934-01	.7169-01	.8002-01	39.91	2.368	.4195	558.2	.1361-02	.1519-02
56	.80000	.90000	377.00	.4845-01	.5855-01	.6536-01	39.87	1.932	.4201	558.9	.1112-02	.1241-02
56	.90000	.70000	381.00	.1211-01	.1464-01	.1634-01	39.84	.4824	.4205	559.4	.2779-03	.3103-03
56	.90000	.90000	382.00	.9856-02	.1192-01	.1331-01	39.76	.3919	.4216	560.8	.2262-03	.2526-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV10)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 3.700 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
76	3.798	7.300	25.00	.0000	689.7	1288.	314.3	.1255	112.4	.9370-04	3793.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2152										
76	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
76	.30000	.90000	352.00	.4843-01	.5848-01	.6525-01	39.35	1.905	.4183	547.9	.1100-02	.1228-02
76	.40000	.70000	357.00	.2553-01	.3082-01	.3438-01	39.42	1.007	.4171	546.5	.5799-03	.6469-03
76	.40000	.90000	358.00	.3561-01	.4300-01	.4798-01	39.37	1.402	.4179	547.5	.8092-03	.9028-03
76	.50000	.90000	361.00	.3412-01	.4119-01	.4596-01	39.40	1.344	.4175	546.9	.7752-03	.8648-03
76	.60000	.70000	367.00	.4703-01	.5676-01	.6331-01	39.46	1.856	.4166	545.7	.1068-02	.1191-02
76	.60000	.90000	368.00	.3702-01	.4469-01	.4986-01	39.39	1.458	.4176	547.1	.8410-03	.9382-03
76	.70000	.70000	370.00	.6754-01	.8152-01	.9033-01	39.45	2.664	.4168	546.0	.1534-02	.1711-02
76	.80000	.70000	376.00	.6842-01	.8259-01	.9213-01	39.42	2.697	.4171	546.5	.1554-02	.1734-02
76	.80000	.90000	377.00	.6689-01	.8076-01	.9009-01	39.39	2.635	.4176	547.1	.1520-02	.1695-02
76	.90000	.70000	381.00	.1389-01	.1677-01	.1871-01	39.36	.5467	.4180	547.6	.3156-03	.3521-03
76	.90000	.90000	382.00	.1430-01	.1728-01	.1928-01	39.28	.5618	.4192	549.1	.3251-03	.3628-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV11)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
59	9.412	7.300	20.00	.0000	1719.	1292.	315.5	.3127	112.8	.2326-03	3800.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
59	.0000	.3399										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
59	.30000	.90000	352.00	.5692-01	.6887-01	.7694-01	61.77	3.516	.4236	556.9	.8224-03	.9189-03
59	.40000	.70000	357.00	.5047-01	.6101-01	.6814-01	61.99	3.128	.4216	554.3	.7287-03	.8138-03
59	.50000	.90000	358.00	.5741-01	.6945-01	.7758-01	61.83	3.550	.4230	556.1	.8294-03	.9265-03
59	.60000	.70000	361.00	.6514-01	.7877-01	.8798-01	61.92	4.033	.4222	555.1	.9408-03	.1051-02
59	.70000	.90000	367.00	.1117	.1350	.1507	62.10	6.934	.4206	553.0	.1612-02	.1800-02
59	.80000	.70000	368.00	.6872-01	.8310-01	.9281-01	61.94	4.257	.4220	554.8	.9825-03	.1108-02
59	.90000	.90000	370.00	.1270	.1535	.1714	62.07	7.884	.4208	553.3	.1834-02	.2047-02
59	.00000	.70000	376.00	.1243	.1388	.1600	62.00	6.375	.4215	554.2	.1485-02	.1658-02
59	.80000	.90000	377.00	.1185	.1433	.1600	61.91	7.333	.4223	555.3	.1711-02	.1911-02
59	.90000	.70000	381.00	.1854-01	.2243-01	.2505-01	61.89	1.148	.4225	555.5	.2678-03	.2992-03
59	.90000	.90000	382.00	.1975-01	.2391-01	.2671-01	61.68	1.218	.4244	558.0	.2855-03	.3190-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV11)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
58	9.117	7.300	25.00	.0000	1683.	1301.	317.6	.3060	113.6	.2261-03	3813.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3365										
58	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
58	.30000	.90000	352.00	.3128-01	.3762-01	.4187-01	63.35	1.981	.4073	539.2	.4564-03	.5079-03
58	.40000	.70000	357.00	.6605-01	.7939-01	.8832-01	63.58	4.199	.4052	536.5	.9632-03	.1071-02
58	.40000	.90000	358.00	.3374-01	.4058-01	.4516-01	63.41	2.140	.4068	538.5	.4923-03	.5478-03
58	.50000	.90000	361.00	.3681-01	.4425-01	.4924-01	63.50	2.337	.4060	537.4	.5369-03	.5973-03
58	.60000	.70000	367.00	.7853-01	.9437-01	.1050	63.67	5.000	.4044	535.4	.1145-02	.1273-02
58	.60000	.90000	368.00	.4498-01	.5408-01	.6017-01	63.52	2.857	.4058	537.2	.6561-03	.7300-03
58	.70000	.70000	370.00	.8419-01	.1012	.1125	63.65	5.358	.4046	535.7	.1228-02	.1365-02
58	.80000	.70000	376.00	.8447-01	.1015	.1130	63.59	5.371	.4052	536.4	.1232-02	.1370-02
58	.80000	.90000	377.00	.1778-01	.8899-01	.9901-01	63.49	4.699	.4060	537.5	.1080-02	.1201-02
58	.90000	.70000	381.00	.1778-01	.2138-01	.2379-01	63.45	1.128	.4064	538.0	.2594-03	.2887-03
58	.90000	.90000	382.00	.1861-01	.2239-01	.2493-01	63.24	1.177	.4084	540.6	.2716-03	.3024-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGV11)

VERT. TAIL (60-O)

OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPOBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
57	8.894	7.300	27.50	.0000	1677.	1317.	321.9	.3046	115.1	.2221-03	3838.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3362										
57	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
57	.30000	.90000	352.00	.2002-01	.2419-01	.2700-01	62.70	1.255	.4200	563.4	.2962-03	.3306-03
57	.40000	.70000	357.00	.3426-01	.4137-01	.4615-01	62.92	2.155	.4180	560.8	.5066-03	.5652-03
57	.40000	.90000	358.00	.2581-01	.3118-01	.3480-01	62.76	1.620	.4194	562.7	.3818-03	.4261-03
57	.50000	.90000	361.00	.2856-01	.3450-01	.3850-01	62.86	1.795	.4186	561.6	.4225-03	.4714-03
57	.60000	.70000	367.00	.4933-01	.5955-01	.6642-01	63.04	3.110	.4170	559.4	.7293-03	.8135-03
57	.60000	.90000	368.00	.2946-01	.3557-01	.3969-01	62.90	1.853	.4182	561.0	.4356-03	.4860-03
57	.70000	.70000	370.00	.6332-01	.7644-01	.8527-01	63.00	3.989	.4173	559.8	.9361-03	.1044-02
57	.80000	.70000	376.00	.6915-01	.8350-01	.9316-01	62.93	4.352	.4179	560.7	.1023-02	.1141-02
57	.80000	.90000	377.00	.5690-01	.6873-01	.7669-01	62.83	3.575	.4188	561.8	.8418-03	.9392-03
57	.90000	.70000	381.00	.1598-01	.1931-01	.2155-01	62.70	1.002	.4199	563.4	.2364-03	.2639-03
57	.90000	.90000	382.00	.1416-01	.1712-01	.1912-01	62.50	.8852	.4217	565.8	.2096-03	.2341-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 50-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV11)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = .0000 RN/L = 9.000 SPDBRK = 49.00

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
55	9.109	7.300	30.00	.0000	1686.	1303.	318.2	.3065	113.8	.2261-03	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
55	.0000	.3368

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.95	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
55	.30000	.90000	352.00	.1706-01	.2061-01	.2300-01	62.22	1.062	.4191	555.8	.2499-03	.2789-03
55	.40000	.70000	357.00	.2675-01	.3223-01	.3602-01	62.43	1.670	.4172	553.2	.3915-03	.4367-03
55	.40000	.90000	358.00	.2026-01	.2447-01	.2731-01	62.26	1.262	.4187	555.2	.2967-03	.3311-03
55	.50000	.90000	361.00	.2435-01	.2941-01	.3281-01	62.36	1.519	.4179	554.1	.3565-03	.3978-03
55	.60000	.70000	367.00	.5139-01	.6201-01	.6916-01	62.54	3.214	.4162	551.9	.7519-03	.8386-03
55	.60000	.90000	368.00	.2705-01	.3266-01	.3643-01	62.40	1.688	.4175	553.6	.3960-03	.4418-03
55	.70000	.70000	370.00	.6198-01	.7480-01	.8342-01	62.52	3.875	.4164	552.2	.9070-03	.1012-02
55	.80000	.70000	376.00	.5901-01	.7123-01	.7945-01	62.44	3.685	.4171	553.1	.8637-03	.9634-03
55	.80000	.90000	377.00	.5972-01	.7211-01	.8045-01	62.35	3.724	.4179	554.2	.8743-03	.9755-03
55	.90000	.70000	381.00	.1355-01	.1637-01	.1827-01	62.20	.8429	.4192	555.9	.1985-03	.2215-03
55	.90000	.90000	382.00	.1047-01	.1265-01	.1413-01	61.99	.6489	.4212	558.6	.1534-03	.1713-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV12)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
68	3.728	7.300	27.50	-2.000	689.8	1302.	318.1	.1254	113.7	.9253-04	3816.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2154
68	.0000	

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
68	.30000	.90000	352.00	.4438-02	.5361-02	.5983-02	39.79	.1766	.4191	555.6	.1016-03	.1134-03
68	.40000	.70000	357.00	.9717-02	.1173-01	.1308-01	39.93	.3880	.4171	553.0	.2223-03	.2480-03
68	.40000	.90000	358.00	.8094-02	.9776-02	.1091-01	39.81	.3222	.4189	555.3	.1853-03	.2068-03
68	.50000	.90000	361.00	.8404-02	.1015-01	.1132-01	39.85	.3350	.4182	554.4	.1924-03	.2146-03
68	.60000	.70000	367.00	.1075-01	.1297-01	.1447-01	40.00	.4301	.4161	551.7	.2459-03	.2743-03
68	.90000	.90000	368.00	.8941-02	.1060-01	.1205-01	39.86	.3564	.4181	554.3	.2046-03	.2283-03
68	.70000	.70000	370.00	.1299-01	.1568-01	.1749-01	39.95	.5190	.4168	552.6	.2972-03	.3315-03
68	.80000	.70000	376.00	.1437-01	.1735-01	.1936-01	39.88	.5730	.4178	554.0	.3288-03	.3669-03
68	.80000	.90000	377.00	.1170-01	.1414-01	.1577-01	39.81	.4659	.4188	555.2	.2679-03	.2990-03
68	.90000	.70000	381.00	.1131-01	.1366-01	.1525-01	39.78	.4499	.4192	555.9	.2590-03	.2890-03
68	.90000	.90000	382.00	.1074-01	.1298-01	.1419-01	39.68	.4262	.4206	557.7	.2460-03	.2746-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 60-O, VERTICAL TAIL (SPEEDBRAKE)

(RAGV13)

VERT. TAIL (60-O)

PARAMETRIC DATA

MACH = 7.300 BETA = -2.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
69	8.971	7.300	27.50	-2.000	1675.	1310.	320.0	.3044	114.4	.2233-03	3827.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
69	.0000	.3359

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
69	.30000	.90000	352.00	.3401-02	.4105-02	.4579-02	62.58	.2128	.4173	556.5	.5011-04	.5590-04
69	.40000	.70000	357.00	.1011-01	.1220-01	.1361-01	62.70	.6340	.4163	555.1	.1490-03	.1661-03
69	.40000	.90000	358.00	.6611-02	.7981-02	.8903-02	62.58	.4137	.4173	556.6	.9741-04	.1087-03
69	.50000	.90000	361.00	.8893-02	.1073-01	.1197-01	62.61	.5568	.4170	556.1	.1310-03	.1462-03
69	.60000	.70000	367.00	.1002-01	.1209-01	.1348-01	62.79	.6293	.4154	554.0	.1476-03	.1646-03
69	.60000	.90000	368.00	.8602-02	.1038-01	.1158-01	62.59	.5384	.4172	556.4	.1267-03	.1414-03
69	.70000	.70000	370.00	.1071-01	.1293-01	.1442-01	62.74	.6722	.4158	554.5	.1758-03	.1760-03
69	.80000	.70000	376.00	.1192-01	.1438-01	.1604-01	62.67	.7469	.4165	555.5	.1756-03	.1959-03
69	.80000	.90000	377.00	.9660-02	.1166-01	.1301-01	62.54	.6042	.4176	556.9	.1424-03	.1588-03
69	.90000	.70000	381.00	.9487-02	.1145-01	.1278-01	62.55	.5935	.4175	556.8	.1398-03	.1560-03
69	.90000	.90000	382.00	.9239-02	.1116-01	.1246-01	62.35	.5761	.4194	559.2	.1362-03	.1520-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV14)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
72	3.701	7.300	27.50	-1.000	690.4	1309.	319.8	.1255	114.3	.9211-04	3826.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
72	.0000	.2156

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
72	.30000	.90000	352.00	.2924-02	.3530-02	.3937-02	40.18	.1175	.4168	555.5	.6709-04	.7483-04
72	.40000	.70000	357.00	.7726-02	.9322-02	.1039-01	40.26	.3111	.4157	554.0	.1772-03	.1976-03
72	.40000	.90000	358.00	.6671-02	.8051-02	.8980-02	40.20	.2682	.4166	555.2	.1530-03	.1707-03
72	.50000	.90000	361.00	.7824-02	.9441-02	.1053-01	40.23	.3148	.4161	554.6	.1795-03	.2001-03
72	.60000	.70000	367.00	.9405-02	.1134-01	.1265-01	40.32	.3792	.4149	553.0	.2156-03	.2404-03
72	.60000	.90000	368.00	.8341-02	.1007-01	.1123-01	40.23	.3355	.4162	554.6	.1913-03	.2134-03
72	.70000	.70000	370.00	.1100-01	.1327-01	.1460-01	40.30	.4434	.4152	553.3	.2523-03	.2813-03
72	.80000	.70000	376.00	.1305-01	.1574-01	.1755-01	40.28	.5255	.4155	553.7	.2992-03	.3336-03
72	.80000	.90000	377.00	.1108-01	.1337-01	.1491-01	40.24	.4458	.4160	554.4	.2541-03	.2834-03
72	.90000	.70000	381.00	.1120-01	.1352-01	.1508-01	40.25	.4510	.4159	554.2	.2570-03	.2866-03
72	.90000	.90000	382.00	.1063-01	.1284-01	.1432-01	40.18	.4273	.4169	555.5	.2440-03	.2721-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

(RAGV15)

VERT. TAIL (60-0)

PARAMETRIC DATA

MACH = 7.300 BETA = -1.000 RN/L = 9.000 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
73	8.988	7.300	27.50	-1.000	1673.	1307.	319.3	.3040	114.1	.2235-03	3823.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
73	.0000	.3355										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
73	.30000	.90000	352.00	.3685-02	.4442-02	.4950-02	62.82	.2315	.4133	550.0	.5420-04	.6041-04
73	.40000	.70000	357.00	.6070-02	.7314-02	.8149-02	62.95	.3821	.4121	548.4	.8926-04	.9945-04
73	.40000	.90000	358.00	.3555-02	.4285-02	.4776-02	62.82	.2233	.4133	549.9	.5229-04	.5828-04
73	.50000	.90000	361.00	.6608-02	.7965-02	.8877-02	62.85	.4154	.4130	549.6	.9720-04	.1083-03
73	.60000	.70000	367.00	.8265-02	.9980-02	.1112-01	63.05	.5223	.4113	547.2	.1218-03	.1357-03
73	.60000	.90000	368.00	.7104-02	.8563-02	.9543-02	62.84	.4464	.4131	549.7	.1045-03	.1165-03
73	.70000	.70000	370.00	.9212-02	.1110-01	.1236-01	63.00	.5804	.4117	547.8	.1354-03	.1509-03
73	.80000	.70000	376.00	.1133-01	.1366-01	.1522-01	62.93	.7132	.4124	548.7	.1667-03	.1857-03
73	.80000	.90000	377.00	.8974-02	.1082-01	.1206-01	62.80	.5636	.4135	550.2	.1320-03	.1471-03
73	.90000	.70000	381.00	.9176-02	.1106-01	.1233-01	62.82	.5765	.4133	550.0	.1350-03	.1504-03
73	.90000	.90000	382.00	.8645-02	.1043-01	.1163-01	62.62	.5414	.4151	552.4	.1272-03	.1419-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV16)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 3.700 SPOBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
75	3.656	7.300	27.50	1.000	690.0	1318.	322.1	.1253	115.2	.9132-04	3840.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
75	.0000	.2157

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
75	.30000	.90000	352.00	.2912-02	.3498-02	.3889-02	41.46	.1207	.4031	541.2	.6686-04	.7434-04
75	.40000	.70000	357.00	.4807-02	.5772-02	.6415-02	41.56	.1998	.4018	539.4	.1103-03	.1226-03
75	.40000	.90000	358.00	.4119-02	.4947-02	.5501-02	41.47	.1708	.4030	541.1	.9456-04	.1051-03
75	.50000	.90000	361.00	.5173-02	.6213-02	.6907-02	41.51	.2147	.4025	540.4	.1188-03	.1320-03
75	.60000	.70000	367.00	.7992-02	.9594-02	.1066-01	41.60	.3325	.4012	538.6	.1834-03	.2038-03
75	.60000	.90000	368.00	.6585-02	.7911-02	.8795-02	41.49	.2733	.4027	540.7	.1512-03	.1681-03
75	.70000	.70000	370.00	.1130-01	.1357-01	.1508-01	41.57	.4697	.4017	539.3	.2594-03	.2883-03
75	.80000	.70000	376.00	.1439-01	.1728-01	.1921-01	41.52	.5973	.4024	540.2	.3303-03	.3672-03
75	.80000	.90000	377.00	.1130-01	.1358-01	.1510-01	41.47	.4688	.4030	541.1	.2595-03	.2886-03
75	.90000	.70000	381.00	.1089-01	.1308-01	.1454-01	41.44	.4512	.4034	541.6	.2500-03	.2780-03
75	.90000	.90000	382.00	.1017-01	.1222-01	.1359-01	41.35	.4206	.4046	543.2	.2336-03	.2598-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV17)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = 1.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
74	9.124	7.300	27.50	1.000	1674.	1296.	316.4	.3044	113.1	.2258-03	3805.	.1750-01
74	PHI DEG.	HS SPHERE TW=540										
74	.0000	.3355										

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
74	.30000	.90000	352.00	.3650-02	.4417-02	.4936-02	61.07	.2229	.4241	559.2	.5355-04	.5984-04
74	.40000	.70000	357.00	.2783-02	.3366-02	.3761-02	61.19	.1703	.4230	557.8	.4081-04	.4559-04
74	.40000	.90000	358.00	.3064-02	.3708-02	.4143-02	61.07	.1871	.4241	559.3	.4495-04	.5023-04
74	.50000	.90000	361.00	.3100-02	.3751-02	.4191-02	61.10	.1894	.4238	558.9	.4547-04	.5080-04
74	.60000	.70000	367.00	.8657-02	.1052-01	.1175-01	61.27	.5329	.4223	556.8	.1275-03	.1424-03
74	.60000	.90000	368.00	.4550-02	.5506-02	.6152-02	61.08	.2779	.4241	559.2	.6675-04	.7458-04
74	.70000	.70000	370.00	.1084-01	.1311-01	.1464-01	61.22	.6635	.4227	557.4	.1775-03	.1775-03
74	.80000	.70000	376.00	.1243-01	.1504-01	.1680-01	61.14	.7600	.4235	558.4	.1823-03	.2037-03
74	.90000	.90000	377.00	.1029-01	.1246-01	.1332-01	61.02	.6280	.4246	559.8	.1510-03	.1687-03
74	.90000	.70000	381.00	.8364-02	.1012-01	.1131-01	61.02	.5104	.4246	559.9	.127-03	.1371-03
74	.90000	.90000	382.00	.8415-02	.1019-01	.1139-01	60.83	.5119	.4264	562.2	.1235-03	.1381-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV18)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 3.700 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
71	3.670	7.300	27.50	2.000	690.2	1315.	321.4	.1254	114.9	.9157-04	3835.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
71	.0000	.2155

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
71	.30000	.90000	352.00	.2092-02	.2515-02	.2799-02	41.18	.8615-01	.4057	543.4	.4799-04	.5340-04
71	.40000	.70000	357.00	.5664-02	.6807-02	.7572-02	41.26	.2337	.4046	541.9	.1299-03	.1445-03
71	.40000	.90000	358.00	.4698-02	.5648-02	.6283-02	41.19	.1935	.4056	543.2	.1078-03	.1199-03
71	.50000	.90000	361.00	.6551-02	.7875-02	.8760-02	41.22	.2700	.4052	542.7	.1503-03	.1672-03
71	.60000	.70000	367.00	.9614-02	.1155-01	.1285-01	41.30	.3971	.4041	541.2	.2205-03	.2452-03
71	.60000	.90000	368.00	.8066-02	.9697-02	.1079-01	41.21	.3324	.4054	542.9	.1850-03	.2058-03
71	.70000	.70000	370.00	.1209-01	.1453-01	.1616-01	41.27	.4989	.4044	541.7	.2772-03	.3083-03
71	.80000	.70000	376.00	.1538-01	.1848-01	.2056-01	41.23	.6340	.4050	542.4	.3527-03	.3923-03
71	.80000	.90000	377.00	.1282-01	.1541-01	.1714-01	41.19	.5280	.4055	543.2	.2941-03	.3271-03
71	.90000	.70000	381.00	.1046-01	.1258-01	.1400-01	41.17	.4308	.4058	543.6	.2401-03	.2671-03
71	.90000	.90000	382.00	.1035-01	.1244-01	.1385-01	41.09	.4251	.4069	545.1	.2374-03	.2642-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGV19)

VERT. TAIL (60-0)

OH110, MODEL 60-0, VERTICAL TAIL (SPEEDBRAKE)

PARAMETRIC DATA

MACH = 7.300 BETA = 2.000 RN/L = 9.000 SPDBRK = .0000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
70	9.000	7.300	27.50	2.000	1674.	1306.	319.1	.3042	114.1	.2238-03	3822.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3357										
70	.0000											

TEST DATA

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
70	.30000	.90000	352.00	.2735-02	.3304-02	.3687-02	62.21	.1702	.4189	557.1	.4028-04	.4495-04
70	.40000	.70000	357.00	.1937-02	.2330-02	.2608-02	62.38	.1208	.4173	555.0	.2850-04	.3180-04
70	.40000	.90000	358.00	.2412-02	.2913-02	.3250-02	62.23	.1501	.4187	556.8	.3551-04	.3963-04
70	.50000	.90000	361.00	.3058-02	.3693-02	.4120-02	62.29	.1905	.4182	556.2	.4502-04	.5023-04
70	.60000	.70000	367.00	.8819-02	.1064-01	.1187-01	62.52	.5513	.4160	553.4	.1297-03	.1447-03
70	.60000	.90000	368.00	.4564-02	.5512-02	.6150-02	62.29	.2843	.4181	556.1	.6719-04	.7497-04
70	.70000	.70000	370.00	.1147-01	.1385-01	.1545-01	62.45	.7166	.4167	554.2	.1688-03	.1883-03
70	.80000	.70000	376.00	.1301-01	.1571-01	.1752-01	62.34	.8111	.4177	555.5	.1915-03	.2136-03
70	.80000	.90000	377.00	.1075-01	.1298-01	.1449-01	62.21	.6685	.4189	557.1	.1582-03	.1766-03
70	.90000	.70000	381.00	.7794-02	.9415-02	.1051-01	62.17	.4846	.4192	557.5	.1148-03	.1281-03
70	.90000	.90000	382.00	.7849-02	.9488-02	.1059-01	61.97	.4864	.4211	560.0	.1157-03	.1291-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.5	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
1	2.070	5.260	20.00	.0000	169.4	1324.	323.8	.2334	206.5	.9485-04	3705.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1403										
1	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
1	5.0000	.22500	334.00	.2350-01	.2824-01	.3142-01	27.02	.6349	.4050	546.6	.3504-03	.3698-03
1	5.0000	.25000	335.00	.2053-01	.2476-01	.2760-01	26.61	.5464	.4138	558.4	.3070-03	.3422-03
1	5.0000	.27500	336.00	.1525-01	.1834-01	.2040-01	27.01	.4121	.4052	546.7	.2275-03	.2531-03
1	5.0000	.30000	337.00	.1282-01	.1541-01	.1714-01	27.03	.3465	.4049	546.3	.1912-03	.2126-03
1	5.0000	.32500	338.00	.1450-01	.1743-01	.1940-01	27.00	.3916	.4055	547.1	.2163-03	.2406-03
1	5.0000	.35000	339.00	.2087-01	.2508-01	.2790-01	27.02	.5639	.4050	546.5	.3112-03	.3462-03
1	5.0000	.40000	341.00	.4381-01	.5266-01	.5857-01	27.03	1.184	.4049	546.4	.6533-03	.7267-03
1	5.0000	.64600-01	380.00	.7499-01	.9023-01	1.004	26.87	2.015	.4082	550.9	.1119-02	.1246-02
1	8.0000	.98900-01	386.00	.7056-01	.8488-01	.9447-01	26.92	1.899	.4073	549.6	.1053-02	.1172-02
1	8.0000	.12680	391.00	.7055-01	.8487-01	.9445-01	26.92	1.899	.4072	549.5	.1053-02	.1172-02
1	8.0000	.13050	392.00	.6020-01	.7243-01	.8061-01	26.90	1.619	.4076	550.0	.8984-03	.9999-03
1	8.0000	.13380	393.00	.7353-01	.8857-01	.9857-01	26.92	1.982	.4072	549.4	.1099-02	.1223-02
1	8.0000	.13760	394.00	.7346-01	.8837-01	.9835-01	26.92	1.978	.4072	549.5	.1096-02	.1220-02
1	8.0000	.14110	395.00	.6773-01	.8147-01	.9067-01	26.92	1.823	.4072	549.5	.1011-02	.1125-02
1	8.0000	.15560	399.00	.2182	.2626	.2923	26.90	5.870	.4077	550.2	.3257-02	.3625-02
1	8.0000	.16080	401.00	.1898	.2285	.2544	26.84	5.096	.4088	551.7	.2834-02	.3155-02
1	8.0000	.16640	403.00	.1895	.2282	.2541	26.81	5.081	.4096	552.7	.2830-02	.3151-02
1	8.0000	.16910	404.00	.1894	.2280	.2538	26.82	5.079	.4093	552.3	.2827-02	.3148-02
1	8.0000	.17480	406.00	.1938	.2333	.2598	26.81	5.195	.4096	552.7	.2834-02	.3222-02
1	8.0000	.17690	407.00	.1909	.2333	.2560	26.81	5.120	.4095	552.5	.2851-02	.3175-02
1	8.0000	.18000	408.00	.2006	.2415	.2690	26.80	5.377	.4097	552.8	.2996-02	.3336-02
1	8.0000	.18630	410.00	.1321	.1591	.1771	26.82	3.544	.4093	552.3	.1973-02	.2197-02

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE												
RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
1	8.0000	.18940	411.00	.1071	.1289	.1436	26.83	2.874	.4091	552.0	.1599-02	.1781-02
1	8.0000	.19310	412.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
1	8.0000	.19720	413.00	.5653-01	.6803-01	.7574-01	26.85	1.518	.4087	551.5	.8439-03	.9395-03

(RAG820)

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAG820)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
2	2.098	5.280	22.50	.0000	167.6	1296.	316.5	.2261	200.6	.9458-04	3666.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1383										
2	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
2	5.0000	.22500	334.00	.2150-01	.2587-01	.2880-01	25.90	.5568	.4085	538.9	.3208-03	.3571-03
2	5.0000	.25000	335.00	.2354-01	.2837-01	.3161-01	25.71	.6052	.4126	544.3	.3517-03	.3919-03
2	5.0000	.27500	336.00	.1284-01	.1545-01	.1720-01	25.91	.3327	.4081	538.4	.1916-03	.2132-03
2	5.0000	.30000	337.00	.1230-01	.1479-01	.1646-01	25.94	.3189	.4076	537.7	.1834-03	.2042-03
2	5.0000	.32500	338.00	.1559-01	.1876-01	.2088-01	25.93	.4044	.4076	537.8	.2326-03	.2589-03
2	5.0000	.35000	339.00	.4532-01	.5451-01	.6066-01	25.97	1.177	.4068	536.7	.6759-03	.7521-03
2	5.0000	.40000	341.00	.2261-01	.2720-01	.3027-01	25.98	.5876	.4066	536.4	.3373-03	.3753-03
2	8.0000	.64600-01	380.00	.6215-01	.7488-01	.8342-01	25.76	1.601	.4115	542.9	.9282-03	.1034-02
2	8.0000	.98900-01	386.00	.6038-01	.7273-01	.8102-01	25.77	1.556	.4113	542.6	.9016-03	.1004-02
2	8.0000	.12680	391.00	.6254-01	.7533-01	.8390-01	25.79	1.613	.4107	541.9	.9338-03	.1040-02
2	8.0000	.13050	392.00	.5265-01	.6341-01	.7064-01	25.78	1.358	.4110	542.2	.7862-03	.8757-03
2	8.0000	.13380	393.00	.6407-01	.7717-01	.8586-01	25.79	1.652	.4108	542.0	.9567-03	.1066-02
2	8.0000	.13760	394.00	.6377-01	.7681-01	.8556-01	25.79	1.645	.4108	542.0	.9522-03	.1061-02
2	8.0000	.14110	395.00	.5979-01	.7201-01	.8020-01	25.80	1.543	.4106	541.7	.8927-03	.9943-03
2	8.0000	.15560	399.00	.1999	.2407	.2681	25.79	5.155	.4108	541.9	.2984-02	.3324-02
2	8.0000	.16080	401.00	.1771	.2134	.2377	25.79	4.568	.4109	542.1	.2645-02	.2946-02
2	8.0000	.16640	403.00	.1713	.2064	.2299	25.76	4.414	.4114	542.8	.2559-02	.2851-02
2	8.0000	.16910	404.00	.1695	.2042	.2275	25.77	4.369	.4113	542.6	.2532-02	.2820-02
2	8.0000	.17480	406.00	.1666	.2007	.2235	25.77	4.292	.4114	542.7	.2488-02	.2771-02
2	8.0000	.17690	407.00	.1625	.1958	.2181	25.77	4.188	.4113	542.7	.2704-02	.2945-02
2	8.0000	.18000	408.00	.1671	.2013	.2242	25.77	4.306	.4112	542.5	.2495-02	.2779-02
2	8.0000	.18630	410.00	.1124	.1354	.1508	25.80	2.900	.4107	541.8	.1679-02	.1870-02

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OH110 (ARC3.SHWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB20)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
2	8.0000	.18940	411.00	.8929-01	.1075	.1198	25.79	2.303	.4108	541.9	.1333-02	.1485-02
2	8.0000	.19310	412.00	.6437-01	.7753-01	.8636-01	25.78	1.660	.4110	542.2	.9612-03	.1071-02
2	8.0000	.19720	413.00	.4639-01	.5587-01	.6223-01	25.79	1.196	.4108	542.0	.6926-03	.7715-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAC820)

FUSELAGE (83-O)

OH110, MODEL 83-O, ORBITER FUSELAGE

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
3	2.108	5.280	25.00	.0000	168.5	1297.	316.7	.2273	200.7	.9502-04	3667.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1387										
3	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
3	5.0000	.22500	334.00	.2511-01	.3026-01	.3373-01	25.77	.6469	.4132	545.4	.3743-03	.4171-03
3	5.0000	.25000	335.00	.2883-01	.3486-01	.3892-01	25.41	.7326	.4211	555.9	.4309-03	.4811-03
3	5.0000	.27500	336.00	.3450-01	.4157-01	.4632-01	25.80	.8900	.4124	544.4	.5142-03	.5729-03
3	5.0000	.30000	337.00	.4084-01	.4933-01	.5495-01	25.84	1.058	.4117	543.4	.6101-03	.6797-03
3	5.0000	.32500	338.00	.4385-01	.5283-01	.5886-01	25.83	1.133	.4117	543.5	.6335-03	.7280-03
3	5.0000	.35000	339.00	.4317-01	.5199-01	.5792-01	25.87	1.117	.4110	542.5	.6431-03	.7164-03
3	5.0000	.40000	341.00	.4421-01	.5325-01	.5931-01	25.88	1.144	.4107	542.1	.6586-03	.7336-03
3	8.0000	.64600-01	380.00	.4882-01	.5892-01	.6573-01	25.60	1.250	.4169	550.4	.7286-03	.8127-03
3	8.0000	.98900-01	386.00	.5384-01	.6497-01	.7246-01	25.63	1.380	.4162	549.5	.8034-03	.8960-03
3	8.0000	.12680	391.00	.5801-01	.6998-01	.7804-01	25.66	1.489	.4154	548.4	.8654-03	.9650-03
3	8.0000	.13050	392.00	.4948-01	.5969-01	.6656-01	25.65	1.269	.4157	548.7	.7381-03	.8231-03
3	8.0000	.13380	393.00	.6046-01	.7294-01	.8134-01	25.66	1.551	.4156	548.6	.9020-03	.1006-02
3	8.0000	.13760	394.00	.6004-01	.7243-01	.8076-01	25.66	1.541	.4155	548.4	.8956-03	.9987-03
3	8.0000	.14110	395.00	.5611-01	.6769-01	.7548-01	25.67	1.441	.4153	548.2	.8371-03	.9334-03
3	8.0000	.15560	399.00	.1869	.2255	.2514	25.67	4.799	.4153	548.2	.2789-02	.3109-02
3	8.0000	.16080	401.00	.1686	.2034	.2268	25.66	4.326	.4155	548.5	.2515-02	.2804-02
3	8.0000	.16540	403.00	.1594	.1923	.2144	25.65	4.088	.4158	548.9	.2378-02	.2651-02
3	8.0000	.16910	404.00	.1568	.1891	.2109	25.65	4.021	.4157	548.8	.2339-02	.2608-02
3	8.0000	.17480	406.00	.1488	.1795	.2001	25.65	3.816	.4158	548.8	.2219-02	.2475-02
3	8.0000	.17690	407.00	.1422	.1716	.1913	25.65	3.648	.4157	548.8	.2121-02	.2366-02
3	8.0000	.18000	408.00	.1452	.1752	.1954	25.66	3.727	.4155	548.5	.2167-02	.2416-02
3	8.0000	.18630	410.00	.9503-01	.1146	.1278	25.69	2.441	.4150	547.8	.1417-02	.1580-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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RUN NUMBER	LINE	XB/LB	T/C NO	OH110, MODEL 83-O, ORBITER FUSELAGE				HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC				
3	8.0000	.18940	411.00	.7439-01	.8973-01	.1000	25.68	.4151	547.9	.1110-02	.1237-02
3	8.0000	.19310	412.00	.5263-01	.6349-01	.7079-01	25.67	.4153	548.2	.7851-03	.8754-03
3	8.0000	.19720	413.00	.3776-01	.4555-01	.5079-01	25.68	.4151	548.0	.5633-03	.6281-03

(RAG820)

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 83-0, ORBITER FUSELAGEPAGE 203
(RAG820)

FUSELAGE (83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
4	2.099	5.280	27.50	.0000	168.4	1300.	317.5	.2272	201.2	.9473-04	3671.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1387										
4	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
4	5.0000	.22500	334.00	.5280-01	.6373-01	.7108-01	25.67	1.355	.4167	551.4	.7894-03	.8805-03
4	5.0000	.25000	335.00	.5518-01	.6667-01	.7442-01	25.53	1.409	.4197	555.4	.8257-03	.9216-03
4	5.0000	.27500	336.00	.4743-01	.5721-01	.6380-01	25.72	1.220	.4155	549.7	.7087-03	.7903-03
4	5.0000	.30000	337.00	.4450-01	.5367-01	.5983-01	25.77	1.147	.4144	548.3	.6648-03	.7411-03
4	5.0000	.32500	338.00	.4815-01	.5807-01	.6474-01	25.76	1.240	.4147	548.7	.7193-03	.8019-03
4	5.0000	.35000	339.00	.4642-01	.5597-01	.6239-01	25.79	1.197	.4140	547.8	.6934-03	.7729-03
4	5.0000	.40000	341.00	.4003-01	.4826-01	.5379-01	25.80	1.033	.4137	547.4	.5978-03	.6663-03
4	8.0000	.64600-01	380.00	.3938-01	.4763-01	.5319-01	25.42	1.001	.4222	558.6	.5897-03	.6587-03
4	8.0000	.98300-01	386.00	.4853-01	.5866-01	.6550-01	25.46	1.235	.4213	557.4	.7264-03	.8111-03
4	8.0000	.12680	391.00	.5480-01	.6621-01	.7391-01	25.52	1.398	.4199	555.6	.8199-03	.9152-03
4	8.0000	.13050	392.00	.4655-01	.5626-01	.6280-01	25.51	1.188	.4201	555.9	.6967-03	.7777-03
4	8.0000	.13380	393.00	.5757-01	.6956-01	.7765-01	25.52	1.469	.4199	555.6	.8615-03	.9616-03
4	8.0000	.13760	394.00	.5791-01	.6997-01	.7809-01	25.54	1.479	.4196	555.2	.8665-03	.9671-03
4	8.0000	.14110	395.00	.5423-01	.6552-01	.7312-01	25.54	1.385	.4194	555.0	.8114-03	.9056-03
4	8.0000	.15560	399.00	.1678	.2027	.2262	25.56	4.290	.4190	554.4	.2510-02	.2802-02
4	8.0000	.16080	401.00	.1577	.1905	.2126	25.56	4.031	.4190	554.4	.2359-02	.2633-02
4	8.0000	.16840	403.00	.1485	.1794	.2002	25.55	3.795	.4191	554.6	.2222-02	.2480-02
4	8.0000	.16910	404.00	.1453	.1755	.1958	25.56	3.713	.4191	554.5	.2173-02	.2425-02
4	8.0000	.17480	406.00	.1373	.1658	.1850	25.56	3.509	.4190	554.4	.2033-02	.2292-02
4	8.0000	.17690	407.00	.1297	.1566	.1748	25.56	3.315	.4190	554.4	.1940-02	.2165-02
4	8.0000	.18000	408.00	.1299	.1569	.1751	25.58	3.323	.4186	553.9	.1943-02	.2168-02
4	8.0000	.18630	410.00	.8131-01	.9818-01	.1095	25.60	2.082	.4181	553.3	.1216-02	.1357-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE (RAG820)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
4	8.0000	.18940	411.00	.6118-01	.7388-01	.8243-01	25.60	1.566	.4182	553.3	.9150-03	.1021-02
4	8.0000	.19310	412.00	.8376-01	.1008	.1122	26.02	2.179	.4090	541.2	.1249-02	.1391-02
4	8.0000	.19720	413.00	.2947-01	.3558-01	.3970-01	25.60	.7543	.4182	553.3	.4407-03	.4917-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAG820)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
5	2.168	5.280	30.00	.0000	180.3	1330.	325.2	.2428	206.1	.9888-04	3715.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1437										
5	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
5	5.0000	.22500	334.00	.6652-01	.7999-01	.8900-01	27.74	1.845	.4061	550.3	.9722-03	.1082-02
5	5.0000	.25000	335.00	.5279-01	.6369-01	.7103-01	27.27	1.440	.4158	563.5	.7737-03	.8628-03
5	5.0000	.27500	336.00	.5343-01	.6426-01	.7150-01	27.72	1.481	.4064	550.8	.7810-03	.8691-03
5	5.0000	.30000	337.00	.5127-01	.6165-01	.6860-01	27.74	1.422	.4061	550.3	.7493-03	.8337-03
5	5.0000	.32500	338.00	.4919-01	.5914-01	.6580-01	27.74	1.365	.4060	550.2	.7189-03	.7998-03
5	5.0000	.35000	339.00	.4956-01	.5958-01	.6628-01	27.78	1.377	.4053	549.2	.7242-03	.8057-03
5	5.0000	.40000	341.00	.5519-01	.6634-01	.7379-01	27.80	1.534	.4049	548.7	.8063-03	.8969-03
5	8.0000	.64600-01	380.00	.3202-01	.3854-01	.4291-01	27.58	.8831	.4093	554.7	.4684-03	.5215-03
5	8.0000	.98900-01	386.00	.4510-01	.5426-01	.6039-01	27.67	1.248	.4074	552.1	.7560-03	.7339-03
5	8.0000	.12680	391.00	.5172-01	.6220-01	.6922-01	27.70	1.433	.4068	551.3	.8413-03	.8411-03
5	8.0000	.13050	392.00	.4554-01	.5479-01	.6098-01	27.68	1.261	.4074	552.0	.6659-03	.7411-03
5	8.0000	.13380	393.00	.5607-01	.6745-01	.7506-01	27.68	1.552	.4072	551.9	.8197-03	.9123-03
5	8.0000	.13760	394.00	.5718-01	.6878-01	.7655-01	27.69	1.583	.4071	551.7	.8359-03	.9303-03
5	8.0000	.14110	395.00	.5378-01	.6468-01	.7199-01	27.69	1.489	.4070	551.6	.7861-03	.8749-03
5	8.0000	.15560	399.00	.1698	.2043	.2273	27.67	4.698	.4075	552.2	.2482-02	.2763-02
5	8.0000	.16080	401.00	.1495	.1799	.2003	27.64	4.134	.4080	553.0	.2187-02	.2434-02
5	8.0000	.16640	403.00	.1409	.1695	.1887	27.62	3.890	.4086	553.7	.2060-02	.2294-02
5	8.0000	.16910	404.00	.1386	.1669	.1858	27.61	3.828	.4087	553.8	.2028-02	.2257-02
5	8.0000	.17480	406.00	.1302	.1568	.1745	27.60	3.595	.4089	554.1	.1905-02	.2121-02
5	8.0000	.17630	407.00	.1225	.1474	.1641	27.60	3.381	.4089	554.1	.1791-02	.1994-02
5	8.0000	.18000	408.00	.1238	.1489	.1658	27.61	3.417	.4087	553.8	.1810-02	.2015-02
5	8.0000	.18630	410.00	.7578-01	.9119-01	.1015	27.64	2.095	.4081	553.0	.1108-02	.1234-02

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 83-O, ORBITER FUSELAGE

(RAG820)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
5	8.0000	.18940	411.00	.5815-01	.6998-01	.7789-01	27.64	1.607	.4081	553.0	.8504-03	.9466-03
5	8.0000	.19310	412.00	.4648-01	.5587-01	.6215-01	27.80	1.292	.4048	548.5	.6791-03	.7554-03
5	8.0000	.19720	413.00	.3072-01	.3697-01	.4115-01	27.64	.8492	.4081	553.0	.4493-03	.5001-03

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAG820)

MACH = 5.300 BETA = .0000 RN/L = 2.000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
6	2.064	5.280	30.50	.0000	167.2	1308.	319.5	.2254	202.5	.9341-04	3683.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540 .1382
6	.0000	

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
6	5.0000	.22500	334.00	.2654-01	.3206-01	.3577-01	25.65	.6808	.4187	557.5	.4000-03	.4464-03
6	5.0000	.25000	335.00	.2640-01	.3193-01	.3566-01	25.49	.6731	.4222	562.1	.3984-03	.4449-03
6	5.0000	.27500	336.00	.1825-01	.2204-01	.2459-01	25.69	.4689	.4178	556.4	.2750-03	.3068-03
6	5.0000	.30000	337.00	.1435-01	.1732-01	.1931-01	25.73	.3691	.4170	555.3	.2161-03	.2410-03
6	5.0000	.32500	338.00	.9413-02	.1136-01	.1268-01	25.71	.2421	.4173	555.7	.1418-03	.1582-03
6	5.0000	.35000	339.00	.1891-01	.2282-01	.2545-01	25.74	.4867	.4167	554.9	.2848-03	.3176-03
6	5.0000	.40000	341.00	.5358-01	.6466-01	.7212-01	25.75	1.380	.4165	554.6	.8089-03	.9000-03
6	8.0000	.64600-01	380.00	.1558-01	.1885-01	.2106-01	25.42	.3961	.4238	564.3	.2352-03	.2628-03
6	8.0000	.98900-01	386.00	.2227-01	.2694-01	.3009-01	25.46	.5671	.4228	563.0	.3361-03	.3754-03
6	8.0000	.12680	391.00	.4269-01	.5162-01	.5765-01	25.51	1.089	.4218	561.7	.6441-03	.7193-03
6	8.0000	.13050	392.00	.3780-01	.4571-01	.5105-01	25.50	.9638	.4221	562.1	.5703-03	.6369-03
6	8.0000	.13380	393.00	.4844-01	.5857-01	.6541-01	25.50	1.235	.4220	561.9	.7307-03	.8161-03
6	8.0000	.13760	394.00	.4992-01	.6036-01	.6741-01	25.51	1.274	.4217	561.5	.7531-03	.8410-03
6	8.0000	.14110	395.00	.4720-01	.5706-01	.6373-01	25.51	1.204	.4217	561.5	.7119-03	.7951-03
6	8.0000	.15560	399.00	.1380	.1668	.1863	25.54	3.524	.4212	560.9	.2081-02	.2324-02
6	8.0000	.16080	401.00	.1379	.1667	.1861	25.52	3.519	.4215	561.2	.2079-02	.2322-02
6	8.0000	.16640	403.00	.1324	.1601	.1787	25.52	3.379	.4216	561.4	.1997-02	.2230-02
6	8.0000	.16910	404.00	.1310	.1584	.1769	25.52	3.343	.4216	561.3	.1976-02	.2207-02
6	8.0000	.17480	406.00	.1229	.1486	.1659	25.52	3.136	.4215	561.3	.1854-02	.2070-02
6	8.0000	.17690	407.00	.1109	.1341	.1498	25.52	2.831	.4215	561.3	.1673-02	.1869-02
6	8.0000	.18000	408.00	.1057	.1278	.1427	25.54	2.700	.4211	560.7	.1595-02	.1780-02
6	8.0000	.18630	410.00	.6368-01	.7696-01	.8592-01	25.56	1.628	.4207	560.1	.9502-03	.1072-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 83-O, ORBITER FUSELAGE (RAG820)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
6	8.0000	.18940	411.00	.4684-01	.5661-01	.6321-01	25.56	1.197	.4207	560.3	.7064-03	.7886-03
6	8.0000	.19310	412.00	.3066-01	.3706-01	.4137-01	25.56	.7837	.4207	560.2	.4624-03	.5162-03
6	8.0000	.19720	413.00	.2290-01	.2768-01	.3090-01	25.56	.5853	.4207	560.2	.3453-03	.3855-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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FUSELAGE (83-O)

OH110, MODEL 83-O, ORBITER FUSELAGE

(RAG820)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
7	1.943	5.280	35.00	.0000	159.9	1321.	322.9	.2155	204.7	.8836-04	3702.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1353										
7	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
7	5.0000	.22500	334.00	.2676-01	.3211-01	.3567-01	26.24	.7022	.3995	537.6	.4127-03	.4586-03
7	5.0000	.25000	335.00	.2194-01	.2636-01	.2932-01	26.03	.5711	.4040	543.8	.3388-03	.3788-03
7	5.0000	.27500	336.00	.1486-01	.1783-01	.1981-01	26.23	.3899	.3996	537.8	.2292-03	.2547-03
7	5.0000	.30000	337.00	.1684-01	.2020-01	.2244-01	26.25	.4421	.3992	537.2	.2597-03	.2885-03
7	5.0000	.32500	338.00	.5156-01	.6185-01	.6871-01	26.25	1.353	.3992	537.2	.7951-03	.8833-03
7	5.0000	.35000	339.00	.7979-01	.9570-01	1.063	26.28	2.097	.3995	536.4	.1230-02	.1366-02
7	5.0000	.40000	341.00	.3931-01	.4714-01	.5236-01	26.30	1.034	.3982	535.9	.6061-03	.6732-03
7	5.0000	.64600-01	380.00	.1340-01	.1609-01	.1789-01	26.09	.3495	.4029	542.2	.2068-03	.2299-03
7	8.0000	.99900-01	386.00	.1642-01	.1972-01	.2192-01	26.14	.4292	.4017	540.6	.2534-03	.2817-03
7	8.0000	.12680	391.00	.3026-01	.3633-01	.4037-01	26.17	.7920	.4010	539.7	.4669-03	.5189-03
7	8.0000	.13050	392.00	.2762-01	.3315-01	.3685-01	26.16	.9264	.4013	540.1	.4262-03	.4736-03
7	8.0000	.13380	393.00	.3541-01	.4251-01	.4724-01	26.16	.9264	.4012	539.9	.5464-03	.6073-03
7	8.0000	.13760	394.00	.3500-01	.4322-01	.4803-01	26.17	.9420	.4011	539.8	.5555-03	.6174-03
7	8.0000	.14110	395.00	.3512-01	.4215-01	.4684-01	26.18	.9193	.4008	539.4	.5418-03	.6021-03
7	8.0000	.15560	399.00	.1171	.1406	.1563	26.17	3.056	.4010	539.7	.1807-02	.2009-02
7	8.0000	.16080	401.00	.1369	.1643	.1826	26.15	3.579	.4013	540.1	.2112-02	.2347-02
7	8.0000	.16640	403.00	.1401	.1682	.1870	26.14	3.663	.4017	540.6	.2162-02	.2403-02
7	8.0000	.16910	404.00	.1415	.1699	.1888	26.14	3.698	.4017	540.7	.2184-02	.2427-02
7	8.0000	.17480	406.00	.1330	.1596	.1775	26.13	3.474	.4019	540.8	.2052-02	.2281-02
7	8.0000	.17690	407.00	.1180	.1417	.1575	26.13	3.083	.4018	540.8	.1821-02	.2034-02
7	8.0000	.18000	408.00	.1093	.1312	.1458	26.14	2.856	.4017	540.6	.1686-02	.1874-02
7	8.0000	.18630	410.00	.6199-01	.7442-01	.8271-01	26.17	1.622	.4010	539.7	.9566-03	.1063-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE

(RAG820)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
7	8.0000	.18940	411.00	.4265-01	.5119-01	.5689-01	26.17	1.116	.4011	539.8	.6580-03	.7313-03
7	8.0000	.19310	412.00	.2965-01	.3559-01	.3955-01	26.16	.7755	.4013	540.0	.4574-03	.5084-03
7	8.0000	.19720	413.00	.2197-01	.2637-01	.2931-01	26.17	.5749	.4011	539.8	.3390-03	.3768-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGB21)

OH110, MODEL 83-0, ORBITER FUSELAGE

FUSELAGE (83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
8	1.954	5.280	20.00	.0000	160.0	1317.	321.8	.2156	204.0	.8871-04	3696.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1353
8	.0000	

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
8	5.0000	.22500	334.00	.2079-01	.2506-01	.2794-01	25.50	.5300	.4138	555.0	.3212-03	.3580-03
8	5.0000	.25000	335.00	.2193-01	.2645-01	.2948-01	25.47	.5587	.4144	555.7	.3389-03	.3778-03
8	5.0000	.27500	336.00	.1222-01	.1473-01	.1641-01	25.59	.3127	.4119	552.4	.1888-03	.2103-03
8	5.0000	.30000	337.00	.9190-02	.1107-01	.1233-01	25.65	.2358	.4104	550.4	.1419-03	.1580-03
8	5.0000	.32500	338.00	.1168-01	.1431-01	.1594-01	25.64	.3046	.4106	550.7	.1834-03	.2043-03
8	5.0000	.35000	339.00	.1504-01	.1811-01	.2017-01	25.67	.3861	.4100	549.8	.2321-03	.2585-03
8	5.0000	.40000	341.00	.3199-01	.3851-01	.4298-01	25.70	.8221	.4093	548.9	.4936-03	.5496-03
8	5.0000	.64600-01	380.00	.7081-01	.8547-01	.9535-01	25.35	1.795	.4171	559.4	.1095-02	.1222-02
8	8.0000	.98900-01	386.00	.6645-01	.8021-01	.8947-01	25.37	1.686	.4167	558.9	.1028-02	.1146-02
8	8.0000	.12690	391.00	.6720-01	.8109-01	.9043-01	25.39	1.706	.4162	558.1	.1039-02	.1159-02
8	8.0000	.13050	392.00	.5642-01	.6809-01	.7594-01	25.38	1.432	.4164	558.5	.8725-03	.9731-03
8	8.0000	.13380	393.00	.6843-01	.8257-01	.9209-01	25.39	1.737	.4162	558.2	.1058-02	.1180-02
8	8.0000	.13760	394.00	.6802-01	.8207-01	.9153-01	25.41	1.728	.4159	557.7	.1052-02	.1173-02
8	8.0000	.14110	395.00	.6410-01	.7734-01	.8625-01	25.41	1.629	.4158	557.7	.9911-03	.1105-02
8	8.0000	.15560	399.00	.2193	.2646	.2950	25.42	5.575	.4156	557.3	.3390-02	.3781-02
8	8.0000	.16080	401.00	.1868	.2253	.2513	25.42	4.748	.4156	557.4	.2688-02	.3220-02
8	8.0000	.16640	403.00	.1848	.2230	.2487	25.42	4.698	.4156	557.4	.2858-02	.3187-02
8	8.0000	.16910	404.00	.1856	.2239	.2497	25.41	4.716	.4158	557.6	.2869-02	.3200-02
8	8.0000	.17480	405.00	.1887	.2277	.2539	25.41	4.796	.4157	557.6	.2918-02	.3254-02
8	8.0000	.17690	407.00	.1863	.2248	.2507	25.41	4.735	.4158	557.6	.2881-02	.3213-02
8	8.0000	.18000	408.00	.1931	.2329	.2597	25.43	4.909	.4154	557.1	.2984-02	.3328-02
8	8.0000	.18630	410.00	.1303	.1572	.1753	25.45	3.316	.4150	556.6	.2014-02	.2246-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE

(RAG821)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
8	8.0000	.18940	411.00	.1052	.1269	.1415	25.45	2.677	.4150	556.6	.1626-02	.1813-02
8	8.0000	.19310	412.00	.8104-01	.9773-01	.1089	25.48	2.065	.4144	555.7	.1252-02	.1396-02
8	8.0000	.19720	413.00	.5388-01	.6499-01	.7245-01	25.45	1.371	.4150	556.5	.8328-03	.9285-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB22)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
10	3.901	5.280	20.00	.0000	310.3	1293.	315.7	.4188	200.1	.1756-03	3661.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TM=540 .1882
10	.0000	

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
10	5.0000	.22500	334.00	.3656-01	.4413-01	.4923-01	34.62	1.266	.4169	548.6	.4013-03	.4476-03
10	5.0000	.25000	335.00	.3584-01	.4343-01	.4857-01	33.97	1.218	.4275	562.5	.3947-03	.4414-03
10	5.0000	.27500	336.00	.2747-01	.3319-01	.3704-01	34.47	.9468	.4195	552.0	.3017-03	.3368-03
10	5.0000	.30000	337.00	.4221-01	.5100-01	.5682-01	34.46	1.455	.4195	552.0	.4636-03	.5175-03
10	5.0000	.32500	338.00	.5518-01	.6666-01	.7441-01	34.46	1.901	.4197	552.2	.6061-03	.6765-03
10	5.0000	.35000	339.00	.5513-01	.6659-01	.7432-01	34.50	1.902	.4190	551.3	.6054-03	.6757-03
10	5.0000	.40000	341.00	.5430-01	.6561-01	.7323-01	34.46	1.871	.4196	552.1	.5965-03	.6658-03
10	8.0000	.64600-01	380.00	.8599-01	.1037	.1155	34.86	2.998	.4131	543.5	.9427-03	.1051-02
10	8.0000	.98900-01	386.00	.7528-01	.9073-01	.1011	34.87	2.625	.4129	543.3	.8252-03	.9196-03
10	8.0000	.12680	391.00	.7758-01	.9355-01	.1043	34.79	2.699	.4143	545.1	.8508-03	.9484-03
10	8.0000	.13050	392.00	.6600-01	.7961-01	.8876-01	34.75	2.293	.4149	546.0	.7239-03	.8071-03
10	8.0000	.13380	393.00	.8032-01	.9688-01	.1080	34.74	2.791	.4150	546.0	.8810-03	.9822-03
10	8.0000	.13760	394.00	.7992-01	.9640-01	.1075	34.75	2.777	.4149	546.0	.8766-03	.9774-03
10	8.0000	.14110	395.00	.7485-01	.9028-01	.1007	34.74	2.600	.4150	546.1	.8210-03	.9154-03
10	8.0000	.15560	399.00	.1727	.2084	.2323	34.71	5.994	.4156	546.9	.1895-02	.2113-02
10	8.0000	.16080	401.00	.1925	.2323	.2591	34.66	6.671	.4164	547.8	.2112-02	.2356-02
10	8.0000	.16640	403.00	.2024	.2443	.2725	34.62	7.007	.4170	548.7	.2221-02	.2478-02
10	8.0000	.16910	404.00	.2071	.2499	.2788	34.61	7.166	.4172	548.9	.2273-02	.2535-02
10	8.0000	.17480	406.00	.2171	.2621	.2924	34.59	7.508	.4175	549.4	.2393-02	.2658-02
10	8.0000	.17690	407.00	.2144	.2588	.2887	34.58	7.413	.4176	549.5	.2353-02	.2625-02
10	8.0000	.18000	408.00	.2188	.2642	.2947	34.60	7.572	.4173	549.1	.2402-02	.2679-02
10	8.0000	.18630	410.00	.2168	.2642	.2947	34.64	5.086	.4167	548.3	.1612-02	.1798-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE (RAG822)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
10	8.0000	.18940	411.00	.1235	.1491	.1663	34.63	4.277	.4168	548.5	.1356-02	.1512-02
10	8.0000	.19310	412.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10	8.0000	.19720	413.00	.6400-01	.7725-01	.8617-01	34.62	2.216	.4170	548.7	.7024-03	.7835-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB22)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
11	3.887	5.280	22.50	.0000	308.4	1291.	315.2	.4163	199.8	.1749-03	3658.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1876										
11	.0000											

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
11	5.0000	.22500	334.00	.4537-01	.5497-01	.6147-01	33.82	1.534	.4274	561.5	.5006-03	.5598-03
11	5.0000	.25000	335.00	.5012-01	.6094-01	.6830-01	33.27	1.668	.4365	573.4	.5546-03	.6217-03
11	5.0000	.27500	336.00	.6048-01	.7328-01	.8195-01	33.82	2.045	.4275	561.6	.6673-03	.7463-03
11	5.0000	.30000	337.00	.5482-01	.6641-01	.7426-01	33.86	1.856	.4268	560.7	.6048-03	.6762-03
11	5.0000	.32500	338.00	.5127-01	.6211-01	.6945-01	33.84	1.735	.4271	561.0	.5656-03	.6324-03
11	5.0000	.35000	339.00	.4984-01	.6036-01	.6749-01	33.88	1.689	.4264	560.2	.5497-03	.6146-03
11	5.0000	.40000	341.00	.6621-01	.8019-01	.8966-01	33.88	2.243	.4265	560.3	.7303-03	.8165-03
11	8.0000	.64600-01	380.00	.7402-01	.8980-01	.1005	33.60	2.487	.4311	566.4	.8176-03	.9152-03
11	8.0000	.98900-01	386.00	.6678-01	.8098-01	.9062-01	33.67	2.249	.4299	564.7	.7373-03	.8251-03
11	8.0000	.12680	391.00	.6975-01	.8457-01	.9461-01	33.72	2.352	.4291	563.8	.7700-03	.8615-03
11	8.0000	.13050	392.00	.5966-01	.7234-01	.8094-01	33.69	2.010	.4296	564.3	.6586-03	.7370-03
11	8.0000	.13380	393.00	.7205-01	.8736-01	.9775-01	33.69	2.428	.4295	564.2	.7954-03	.8900-03
11	8.0000	.13760	394.00	.7230-01	.8766-01	.9808-01	33.70	2.436	.4294	564.1	.7982-03	.8931-03
11	8.0000	.14110	395.00	.6728-01	.8158-01	.9128-01	33.70	2.267	.4294	564.1	.7428-03	.8311-03
11	8.0000	.15560	399.00	.1764	.2140	.2394	33.68	5.943	.4297	564.5	.1948-02	.2180-02
11	8.0000	.16080	401.00	.1773	.2150	.2406	33.65	5.964	.4303	565.3	.1958-02	.2191-02
11	8.0000	.16640	403.00	.1826	.2215	.2479	33.62	6.137	.4307	565.9	.2016-02	.2257-02
11	8.0000	.16910	404.00	.1849	.2243	.2511	33.61	6.215	.4309	566.0	.2042-02	.2286-02
11	8.0000	.17480	406.00	.1895	.2299	.2574	33.60	6.368	.4310	566.3	.2093-02	.2343-02
11	8.0000	.17690	407.00	.1859	.2255	.2525	33.60	6.246	.4311	566.3	.2053-02	.2298-02
11	8.0000	.18000	408.00	.1889	.2291	.2564	33.63	6.352	.4306	565.7	.2086-02	.2335-02
11	8.0000	.18630	410.00	.1239	.1503	.1682	33.67	4.174	.4298	564.7	.1369-02	.1531-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG822)

OH110, MODEL 83-0, ORBITER FUSELAGE

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.1251-02 .0000 .6529-03
11	8.0000	.18940	411.00	.1013	.1228	.1374	33.66	3.409	.4300	564.9	.1118-02 .0000	.1251-02 .0000
11	8.0000	.19310	412.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11	8.0000	.19720	413.00	.5283-01	.6408-01	.7171-01	33.66	1.778	.4301	565.0	.5834-03	.6529-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB22)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
12	3.913	5.280	25.00	.0000	308.0	1284.	313.5	.4158	198.7	.1756-03	3648.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1874
12	.0000	

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	ODOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
12	5.0000	.22500	334.00	.7932-01	.9570-01	.1067	34.30	2.721	.4158	543.3	.8698-03	.9699-03
12	5.0000	.25000	335.00	.5695-01	.6884-01	.7686-01	33.99	1.936	.4210	550.0	.6254-03	.6983-03
12	5.0000	.27500	336.00	.5631-01	.6795-01	.7577-01	34.29	1.931	.4160	543.5	.6175-03	.6886-03
12	5.0000	.30000	337.00	.5359-01	.6465-01	.7208-01	34.34	1.840	.4152	542.4	.5875-03	.6551-03
12	5.0000	.32500	338.00	.5265-01	.6375-01	.7108-01	34.34	1.815	.4153	542.5	.5794-03	.6460-03
12	5.0000	.35000	339.00	.5046-01	.6085-01	.6785-01	34.37	1.734	.4148	541.9	.5531-03	.6166-03
12	5.0000	.40000	341.00	.6400-01	.7717-01	.8603-01	34.40	2.201	.4143	541.2	.7014-03	.7819-03
12	8.0000	.64600-01	380.00	.6424-01	.7758-01	.8657-01	34.14	2.193	.4185	546.8	.7049-03	.7866-03
12	8.0000	.98900-01	386.00	.6071-01	.7330-01	.8178-01	34.18	2.075	.4178	545.8	.6661-03	.7431-03
12	8.0000	.12680	391.00	.6508-01	.7857-01	.8765-01	34.21	2.226	.4174	545.3	.7140-03	.7965-03
12	8.0000	.13050	392.00	.5588-01	.6746-01	.7526-01	34.20	1.911	.4175	545.5	.6130-03	.6839-03
12	8.0000	.13380	393.00	.6819-01	.8233-01	.9185-01	34.19	2.332	.4176	545.6	.7481-03	.8346-03
12	8.0000	.13760	394.00	.6849-01	.8268-01	.9224-01	34.20	2.198	.4175	545.5	.7514-03	.8382-03
12	8.0000	.14110	395.00	.6423-01	.7753-01	.8648-01	34.22	2.342	.4172	545.1	.7046-03	.7860-03
12	8.0000	.15560	399.00	.1856	.2241	.2500	34.20	6.348	.4176	545.6	.2037-02	.2272-02
12	8.0000	.16060	401.00	.1700	.2052	.2269	34.19	5.811	.4177	545.7	.1865-02	.2080-02
12	8.0000	.16640	403.00	.1718	.2075	.2315	34.16	5.869	.4182	546.4	.1885-02	.2104-02
12	8.0000	.16910	404.00	.1731	.2091	.2333	34.16	5.915	.4181	546.3	.1900-02	.2120-02
12	8.0000	.17480	406.00	.1736	.2096	.2339	34.16	5.929	.4183	546.5	.1905-02	.2125-02
12	8.0000	.17690	407.00	.1684	.2033	.2269	34.16	5.752	.4181	546.3	.1848-02	.2061-02
12	8.0000	.18000	408.00	.1680	.2029	.2264	34.18	5.744	.4178	545.9	.1844-02	.2057-02
12	8.0000	.18630	410.00	.1082	.1306	.1457	34.22	3.703	.4171	545.0	.1187-02	.1324-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG822)

OH110, MODEL 83-O, ORBITER FUSELAGE

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
12	8.0000	.18940	411.00	.8681-01	.1048	.1169	34.23	2.971	.4170	544.9	.9522-03	.1062-02
12	8.0000	.19310	412.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
12	8.0000	.19720	413.00	.4442-01	.5362-01	.5981-01	34.22	1.520	.4172	545.0	.4873-03	.5436-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (83-0)

OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB22)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
13	3.803	5.280	27.00	.0000	308.7	1310.	320.0	.4162	202.8	.1722-03	3686.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1878
13	.0000	

TEST DATA

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
13	5.0000	.22500	334.00	.6852-01	.8260-01	.9206-01	35.24	2.415	.4134	551.3	.7594-03	.8464-03
13	5.0000	.25000	335.00	.6240-01	.7540-01	.8417-01	34.84	2.174	.4199	560.0	.6930-03	.7735-03
13	5.0000	.27500	336.00	.5691-01	.6860-01	.7645-01	35.25	2.006	.4133	551.2	.6307-03	.7029-03
13	5.0000	.30000	337.00	.5014-01	.6042-01	.6733-01	35.30	1.770	.4125	550.0	.5555-03	.6190-03
13	5.0000	.32500	338.00	.5192-01	.6257-01	.6972-01	35.30	1.833	.4125	550.0	.5753-03	.6410-03
13	5.0000	.35000	339.00	.5182-01	.6243-01	.6955-01	35.34	1.831	.4118	549.1	.5740-03	.6395-03
13	5.0000	.40000	341.00	.5023-01	.6051-01	.6741-01	35.37	1.777	.4114	548.6	.5564-03	.6198-03
13	8.0000	.64600-01	380.00	.5670-01	.6843-01	.7632-01	35.05	1.987	.4165	555.5	.6290-03	.7015-03
13	8.0000	.98900-01	386.00	.5655-01	.6822-01	.7607-01	35.10	1.985	.4156	554.3	.6271-03	.6993-03
13	8.0000	.12680	391.00	.6179-01	.7453-01	.8310-01	35.14	2.171	.4151	553.5	.6852-03	.7639-03
13	8.0000	.13050	392.00	.5196-01	.6269-01	.6990-01	35.11	1.825	.4155	554.1	.5763-03	.6426-03
13	8.0000	.13380	393.00	.6402-01	.7724-01	.8612-01	35.12	2.248	.4154	554.0	.7100-03	.7917-03
13	8.0000	.13760	394.00	.6427-01	.7753-01	.8645-01	35.13	2.258	.4152	553.7	.7127-03	.7947-03
13	8.0000	.14110	395.00	.6050-01	.7297-01	.8136-01	35.14	2.126	.4151	553.5	.6708-03	.7479-03
13	8.0000	.15560	399.00	.1797	.2167	.2416	35.13	6.312	.4152	553.7	.1992-02	.2221-02
13	8.0000	.16080	401.00	.1657	.2000	.2230	35.10	5.818	.4156	554.3	.1838-02	.2050-02
13	8.0000	.16640	403.00	.1646	.1987	.2216	35.08	5.775	.4161	554.9	.1826-02	.2037-02
13	8.0000	.16910	404.00	.1651	.1992	.2221	35.08	5.790	.4161	554.9	.1831-02	.2042-02
13	8.0000	.17480	406.00	.1623	.1958	.2184	35.07	5.691	.4162	555.1	.1800-02	.2008-02
13	8.0000	.17690	407.00	.1562	.1885	.2102	35.07	5.691	.4162	555.0	.1733-02	.1932-02
13	8.0000	.18000	408.00	.1543	.1862	.2076	35.09	5.415	.4158	554.6	.1711-02	.1909-02
13	8.0000	.18630	410.00	.9619-01	.1160	.1294	35.14	3.380	.4150	553.4	.1067-02	.1189-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER FUSELAGE

(RAGB22)

RUN NUMBER	LINE	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
13	8.0000	.18940	411.00	.7308-01	.8814-01	.9828-01	35.14	2.568	.4150	553.4	.8103-03	.9034-03
13	8.0000	.19310	412.00	.5041-01	.6081-01	.6780-01	35.12	1.770	.4153	553.9	.5590-03	.6233-03
13	8.0000	.19720	413.00	.3515-01	.4240-01	.4727-01	35.14	1.235	.4150	553.5	.3898-03	.4346-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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CANOPY (83-0)

OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
1	2.070	5.260	20.00	.0000	169.4	1324.	323.8	.2334	206.5	.9485-04	3705.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1403
1	.0000	

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
1	1.0000	4.0000	177.00	.1992	.2398	.2671	26.80	5.339	.4097	552.8	.2975-02	.3312-02
1	1.0000	6.0000	178.00	.3182	.3832	.4268	26.76	8.513	.4107	554.1	.4752-02	.5293-02
1	2.0000	6.0000	179.00	.3601	.4337	.4831	26.75	9.631	.4109	554.4	.5379-02	.5991-02
1	3.0000	3.0000	180.00	.2124	.2556	.2845	26.85	5.701	.4087	551.5	.3170-02	.3529-02
1	3.0000	4.0000	181.00	.2147	.2585	.2878	26.82	5.758	.4094	552.4	.3206-02	.3570-02
1	3.0000	5.0000	182.00	.2647	.3187	.3549	26.79	7.089	.4100	553.3	.3952-02	.4401-02
1	4.0000	1.0000	183.00	.4173-01	.5023-01	.5592-01	26.84	1.120	.4088	551.7	.6230-03	.6936-03
1	4.0000	2.0000	184.00	.4929-01	.5933-01	.6605-01	26.85	1.324	.4087	551.5	.7358-03	.8192-03
1	4.0000	3.0000	185.00	.1745	.2101	.2339	26.83	4.683	.4091	552.0	.2606-02	.2901-02
1	4.0000	4.0000	186.00	.2120	.2553	.2843	26.81	5.684	.4096	552.8	.3166-02	.3526-02
1	4.0000	5.0000	187.00	.2654	.3196	.3559	26.79	7.111	.4100	553.2	.3964-02	.4414-02
1	4.0000	6.0000	188.00	.3018	.3635	.4049	26.75	8.074	.4108	554.3	.4508-02	.5022-02
1	5.0000	3.0000	189.00	.2064	.2485	.2767	26.83	5.538	.4092	552.1	.3082-02	.3432-02
1	5.0000	4.0000	190.00	.2766	.3330	.3709	26.80	7.412	.4098	553.0	.4131-02	.4600-02
1	5.0000	5.0000	191.00	.2895	.3485	.3881	26.79	7.754	.4100	553.2	.4323-02	.4814-02
1	6.0000	2.0000	192.00	.6374-01	.7672-01	.8542-01	26.83	1.710	.4090	552.0	.9516-03	.1059-02
1	6.0000	6.0000	193.00	.1819	.2191	.2440	26.75	4.865	.4109	554.4	.2717-02	.3027-02
1	7.0000	3.0000	194.00	.1079	.1299	.1447	26.81	2.894	.4095	552.6	.1612-02	.1795-02
1	7.0000	4.0000	195.00	.2097	.2526	.2813	26.78	5.618	.4101	553.4	.3132-02	.3488-02
1	7.0000	5.0000	196.00	.2210	.2661	.2964	26.77	5.917	.4103	553.6	.3300-02	.3676-02
1	8.0000	1.0000	197.00	.2881-01	.3466-01	.3858-01	26.89	.7747	.4078	550.3	.4300-03	.4786-03
1	8.0000	2.0000	198.00	.5332-01	.6418-01	.7145-01	26.85	1.432	.4087	551.4	.7960-03	.8862-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
1	8.0000	3.0000	199.00	.1111	.1338	.1490	26.80	2.978	.4097	552.8	.1659-02	.1848-02
1	8.0000	4.0000	200.00	.1976	.2380	.2651	26.77	5.292	.4103	553.6	.2952-02	.3288-02
1	8.0000	5.0000	201.00	.2745	.3306	.3682	26.76	7.348	.4105	553.9	.4100-02	.4567-02
1	8.0000	6.0000	202.00	.1416	.1706	.1900	26.74	3.786	.4110	554.6	.2115-02	.2356-02
1	9.0000	3.0000	203.00	.1562	.1880	.2094	26.80	4.185	.4098	552.9	.2332-02	.2597-02
1	9.0000	4.0000	204.00	.2284	.2751	.3064	26.77	6.115	.4104	553.8	.3412-02	.3800-02
1	9.0000	5.0000	205.00	.3104	.3738	.4163	26.76	8.306	.4106	554.0	.4636-02	.5163-02
1	10.0000	2.0000	206.00	.5625-01	.6767-01	.7531-01	26.91	1.514	.4074	549.8	.8394-03	.9342-03
1	10.0000	6.0000	207.00	.1116	.1344	.1497	26.74	2.985	.4109	554.5	.1667-02	.1857-02
1	11.0000	3.0000	208.00	.7350-01	.8849-01	.9854-01	26.81	1.971	.4096	552.7	.1098-02	.1222-02
1	11.0000	4.0000	209.00	.5413-01	.6519-01	.7261-01	26.76	1.449	.4105	554.0	.8085-03	.9005-03
1	11.0000	5.0000	210.00	.8713-01	.1049	.1169	26.76	2.332	.4106	554.1	.1301-02	.1450-02
1	12.0000	1.0000	211.00	.4238-01	.5099-01	.5676-01	26.89	1.140	.4079	550.4	.6325-03	.7041-03
1	12.0000	2.0000	212.00	.5698-01	.6858-01	.7634-01	26.85	1.530	.4086	551.4	.8506-03	.9469-03
1	12.0000	3.0000	213.00	.9234-01	.1112	.1239	26.76	2.471	.4105	553.9	.1379-02	.1536-02
1	12.0000	5.0000	215.00	.1153	.1388	.1546	26.76	3.084	.4106	554.1	.1722-02	.1917-02
1	12.0000	6.0000	216.00	.7104-01	.8554-01	.9526-01	26.78	1.902	.4102	553.5	.1061-02	.1181-02
1	12.0000	7.0000	217.00	.7079-01	.8523-01	.9491-01	26.80	1.897	.4097	552.9	.1057-02	.1177-02
1	13.0000	3.0000	218.00	.1009	.1215	.1353	26.75	2.699	.4108	554.3	.1507-02	.1678-02
1	13.0000	5.0000	220.00	.9084-01	.1093	.1217	26.83	2.437	.4091	552.1	.1356-02	.1510-02
1	14.0000	2.0000	222.00	.4137-01	.4974-01	.5534-01	26.98	1.116	.4059	547.7	.6171-03	.6866-03
1	14.0000	6.0000	223.00	.3637-01	.4380-01	.4879-01	26.75	.9730	.4107	554.2	.5432-03	.6050-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
2	2.098	5.280	22.50	.0000	167.6	1296.	316.5	.2261	200.6	.9458-04	3666.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1383
2	.0000	

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
2	1.0000	4.0000	177.00	.1767	.2128	.2371	25.78	4.554	.4111	542.4	.2638-02	.2939-02
2	1.0000	6.0000	178.00	.2761	.3326	.3705	25.76	7.113	.4114	542.8	.4123-02	.4593-02
2	2.0000	6.0000	179.00	.3198	.3853	.4292	25.75	8.234	.4117	543.2	.4776-02	.5321-02
2	3.0000	3.0000	180.00	.1804	.2173	.2421	25.78	4.651	.4110	542.2	.2694-02	.3001-02
2	3.0000	4.0000	181.00	.1800	.2168	.2415	25.78	4.640	.4111	542.4	.2688-02	.2994-02
2	3.0000	5.0000	182.00	.2366	.2851	.3176	25.76	6.096	.4114	542.8	.3534-02	.3937-02
2	4.0000	1.0000	183.00	.2459-01	.2963-01	.3301-01	25.75	.6333	.4117	543.1	.3673-03	.4092-03
2	4.0000	2.0000	184.00	.3316-01	.3995-01	.4451-01	25.76	.8543	.4115	542.9	.4953-03	.5518-03
2	4.0000	3.0000	185.00	.1341	.1615	.1800	25.77	3.456	.4113	542.6	.2003-02	.2231-02
2	4.0000	4.0000	186.00	.1938	.2335	.2601	25.76	4.991	.4116	543.0	.2894-02	.3224-02
2	4.0000	5.0000	187.00	.2556	.3079	.3431	25.76	6.583	.4116	543.4	.3817-02	.4253-02
2	4.0000	6.0000	188.00	.2495	.3007	.3350	25.74	6.423	.4119	543.4	.3727-02	.4152-02
2	5.0000	3.0000	189.00	.1454	.1752	.1952	25.74	3.742	.4120	543.5	.2172-02	.2420-02
2	5.0000	4.0000	190.00	.2534	.3053	.3402	25.73	6.520	.4121	543.7	.3785-02	.4217-02
2	5.0000	5.0000	191.00	.3155	.3802	.4236	25.74	8.123	.4119	543.4	.4713-02	.5251-02
2	6.0000	2.0000	192.00	.5064-01	.6103-01	.6801-01	25.71	1.302	.4126	544.3	.7566-03	.8431-03
2	6.0000	3.0000	193.00	.1772	.2135	.2379	25.72	4.559	.4123	543.9	.2647-02	.2949-02
2	7.0000	3.0000	194.00	.1097	.1323	.1474	25.70	2.820	.4129	544.7	.1640-02	.1827-02
2	7.0000	4.0000	195.00	.1871	.2255	.2513	25.70	4.808	.4129	544.7	.2795-02	.3115-02
2	7.0000	5.0000	196.00	.2144	.2584	.2880	25.70	5.511	.4127	544.5	.3203-02	.3570-02
2	8.0000	1.0000	197.00	.1683-01	.2029-01	.2262-01	25.65	.4317	.4139	546.0	.2515-03	.2803-03
2	8.0000	2.0000	198.00	.3583-01	.4320-01	.4816-01	25.65	.9191	.4139	546.1	.5355-03	.5969-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC201)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
2	8.0000	3.0000	199.00	.1098	.1324	.1475	25.66	2.818	.4137	545.7	.1641-02	.1829-02
2	8.0000	4.0000	200.00	.1784	.2150	.2397	25.67	4.579	.4135	545.5	.2665-02	.2971-02
2	8.0000	5.0000	201.00	.2718	.3277	.3651	25.69	6.983	.4130	544.9	.4061-02	.4526-02
2	8.0000	6.0000	202.00	.1340	.1616	.1800	25.69	3.444	.4130	544.8	.2003-02	.2232-02
2	9.0000	3.0000	203.00	.1206	.1454	.1621	25.63	3.090	.4143	546.6	.1802-02	.2009-02
2	9.0000	4.0000	204.00	.1852	.2233	.2489	25.65	4.751	.4139	546.1	.2768-02	.3085-02
2	9.0000	5.0000	205.00	.2839	.3422	.3814	25.67	7.287	.4135	545.5	.4242-02	.4728-02
2	10.000	2.0000	206.00	.3189-01	.3845-01	.4286-01	25.64	.8176	.4142	546.4	.4765-03	.5313-03
2	10.000	6.0000	207.00	.9244-01	.1114	.1242	25.68	2.374	.4133	545.2	.1381-02	.1539-02
2	11.000	3.0000	208.00	.5746-01	.6930-01	.7726-01	25.62	1.472	.4146	546.9	.8590-03	.9576-03
2	11.000	4.0000	209.00	.5279-01	.6366-01	.7097-01	25.62	1.353	.4145	546.9	.7891-03	.8797-03
2	11.000	5.0000	210.00	.5821-01	.7019-01	.7823-01	25.65	1.493	.4139	546.0	.8700-03	.9697-03
2	12.000	1.0000	211.00	.3242-01	.3909-01	.4358-01	25.64	.8314	.4141	546.3	.4846-03	.5401-03
2	12.000	2.0000	212.00	.4067-01	.4905-01	.5468-01	25.62	1.042	.4145	546.9	.6080-03	.6778-03
2	12.000	3.0000	213.00	.7927-01	.9560-01	1.066	25.62	2.031	.4145	546.9	.1185-02	.1321-02
2	12.000	5.0000	215.00	.9509-01	.1147	.1278	25.64	2.438	.4142	546.4	.1421-02	.1584-02
2	12.000	6.0000	216.00	.5679-01	.6846-01	.7630-01	25.67	1.458	.4134	545.4	.8486-03	.9457-03
2	12.000	7.0000	217.00	.6094-01	.7346-01	.8186-01	25.68	1.565	.4132	545.1	.9105-03	.1015-02
2	13.000	3.0000	218.00	.8987-01	.1036	.1155	25.61	2.199	.4148	547.2	.1284-02	.1431-02
2	13.000	5.0000	220.00	.8407-01	.1013	.1129	25.69	2.160	.4130	544.8	.1256-02	.1400-02
2	14.000	2.0000	222.00	.3164-01	.3810-01	.4243-01	25.81	.8167	.4103	541.4	.4723-03	.5261-03
2	14.000	6.0000	223.00	.3809-01	.4592-01	.5119-01	25.65	.9769	.4139	546.1	.5692-03	.6344-03

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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CANOPY (83-0)

OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
3	2.108	5.280	25.00	.0000	168.5	1297.	316.7	.2273	200.7	.9502-04	3667.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1387										
3	.0000											

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
3	1.0000	4.0000	177.00	.1649	.1989	.2218	25.65	4.229	.4158	548.9	.2460-02	.2743-02
3	1.0000	6.0000	178.00	.2479	.2992	.3336	25.64	6.357	.4160	549.1	.3699-02	.4126-02
3	2.0000	6.0000	179.00	.2773	.3346	.3731	25.63	7.105	.4163	549.5	.4137-02	.4614-02
3	3.0000	3.0000	180.00	.1678	.2025	.2258	25.65	4.305	.4158	548.9	.2504-02	.2792-02
3	3.0000	4.0000	181.00	.1722	.2077	.2316	25.65	4.415	.4159	548.9	.2569-02	.2864-02
3	3.0000	5.0000	182.00	.2430	.2932	.3270	25.64	6.229	.4161	549.2	.3626-02	.4043-02
3	4.0000	1.0000	183.00	.1994-01	.2407-01	.2684-01	25.62	.5109	.4165	549.8	.2976-03	.3319-03
3	4.0000	2.0000	184.00	.2812-01	.3393-01	.3785-01	25.62	.7205	.4164	549.6	.4196-03	.4680-03
3	4.0000	3.0000	185.00	.1113	.1343	.1498	25.64	2.855	.4160	549.2	.1661-02	.1853-02
3	4.0000	4.0000	186.00	.1719	.2075	.2314	25.63	4.407	.4162	549.4	.2566-02	.2861-02
3	4.0000	5.0000	187.00	.2830	.3415	.3808	25.63	7.254	.4161	549.3	.4223-02	.4709-02
3	4.0000	6.0000	188.00	.2477	.2990	.3335	25.62	6.347	.4164	549.7	.3637-02	.4123-02
3	5.0000	3.0000	189.00	.9345-01	.1128	.1258	25.61	2.393	.4166	549.9	.1395-02	.1555-02
3	5.0000	4.0000	190.00	.1925	.2323	.2591	25.61	4.928	.4167	550.0	.2872-02	.3203-02
3	5.0000	5.0000	191.00	.3109	.3752	.4185	25.62	7.966	.4165	549.7	.4640-02	.5175-02
3	6.0000	2.0000	192.00	.5856-01	.7069-01	.7886-01	25.59	1.498	.4172	.8741-03	.9751-03	.9751-03
3	6.0000	3.0000	193.00	.1500	.1811	.2020	25.60	3.841	.4168	550.2	.2239-02	.2497-02
3	7.0000	3.0000	194.00	.1125	.1359	.1516	25.58	2.879	.4174	550.9	.1680-02	.1874-02
3	7.0000	4.0000	195.00	.1605	.1938	.2162	25.58	4.106	.4173	550.9	.2396-02	.2673-02
3	7.0000	5.0000	196.00	.1841	.2222	.2478	25.59	4.710	.4171	550.6	.2747-02	.3064-02
3	8.0000	1.0000	197.00	.1062-01	.1282-01	.1431-01	25.55	.2713	.4181	551.9	.1585-03	.1769-03
3	8.0000	2.0000	198.00	.2504-01	.3024-01	.3374-01	25.54	.6396	.4181	551.9	.3739-03	.4171-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
4	2.099	5.280	27.50	.0000	168.4	1300.	317.5	.2272	201.2	.9473-04	3571.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1387
4	.0000	

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
4	1.0000	4.0000	177.00	.1549	.1871	.2088	25.56	3.960	.4190	554.4	.2317-02	.2586-02
4	1.0000	6.0000	178.00	.2226	.2683	.3001	25.56	5.691	.4189	554.3	.3330-02	.3716-02
4	2.0000	6.0000	179.00	.2652	.3204	.3575	25.56	6.778	.4191	554.5	.3968-02	.4426-02
4	3.0000	3.0000	180.00	.1744	.2106	.2351	25.56	4.456	.4191	554.6	.2608-02	.2911-02
4	3.0000	4.0000	181.00	.1733	.2094	.2337	25.56	4.431	.4190	554.4	.2593-02	.2894-02
4	3.0000	5.0000	182.00	.2477	.2992	.3339	25.56	6.331	.4190	554.4	.3705-02	.4135-02
4	4.0000	2.0000	183.00	.2003-01	.2420-01	.2701-01	25.52	.5110	.4200	555.8	.2997-03	.3345-03
4	4.0000	3.0000	184.00	.2822-01	.3410-01	.3806-01	25.53	.7204	.4198	555.5	.4223-03	.4713-03
4	4.0000	4.0000	185.00	.1195	.1443	.1611	25.56	3.053	.4191	554.6	.1787-02	.1995-02
4	4.0000	5.0000	186.00	.1566	.1891	.2111	25.55	4.001	.4192	554.6	.2342-02	.2614-02
4	4.0000	6.0000	187.00	.2732	.3324	.3710	25.56	7.035	.4190	554.4	.4117-02	.4594-02
4	5.0000	3.0000	188.00	.2211	.2671	.2981	25.56	5.651	.4191	554.6	.3309-02	.3692-02
4	5.0000	4.0000	189.00	.8714-01	.1053	.1175	25.54	2.225	.4196	555.2	.1304-02	.1455-02
4	5.0000	5.0000	190.00	.1602	.1936	.2160	25.54	4.092	.4195	555.1	.2397-02	.2675-02
4	5.0000	6.0000	191.00	.2775	.3352	.3741	25.55	7.090	.4192	554.7	.4151-02	.4633-02
4	6.0000	2.0000	192.00	.7978-01	.9641-01	.1076	25.50	2.034	.4204	556.3	.1194-02	.1333-02
4	6.0000	3.0000	193.00	.1302	.1573	.1756	25.55	3.327	.4193	554.8	.1948-02	.2174-02
4	6.0000	4.0000	194.00	.1051	.1270	.1418	25.51	2.681	.4202	556.0	.1573-02	.1756-02
4	7.0000	4.0000	195.00	.1708	.2063	.2303	25.52	4.358	.4199	555.6	.2555-02	.2852-02
4	7.0000	5.0000	196.00	.1766	.2134	.2382	25.43	4.508	.4197	554.9	.2642-02	.2949-02
4	8.0000	1.0000	197.00	.1063-01	.1285-01	.1436-01	25.43	.2704	.4218	558.2	.1592-03	.1778-03
4	8.0000	2.0000	198.00	.1753-01	.2120-01	.2367-01	25.44	.4461	.4216	557.8	.2625-03	.2931-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGC20)

OH110, MODEL 83-0, ORBITER CANOPY

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
4	8.0000	3.0000	199.00	.5971-01	.7218-01	.8059-01	25.47	1.521	.4209	556.9	.8938-03	.9980-03
4	8.0000	4.0000	200.00	.1228	.1484	.1657	25.50	3.131	.4205	556.3	.1838-02	.2052-02
4	8.0000	5.0000	201.00	.1931	.2333	.2604	25.52	4.926	.4200	555.8	.2889-02	.3225-02
4	8.0000	6.0000	202.00	.1073	.1297	.1447	25.53	2.740	.4197	555.4	.1606-02	.1792-02
4	9.0000	3.0000	203.00	.3887-01	.4699-01	.5248-01	25.44	.9889	.4217	557.9	.5819-03	.6499-03
4	9.0000	4.0000	204.00	.9108-01	.1101	.1229	25.47	2.320	.4210	557.1	.1363-02	.1522-02
4	9.0000	5.0000	205.00	.1990	.2405	.2685	25.50	5.076	.4203	556.1	.2979-02	.3325-02
4	10.000	2.0000	206.00	.8299-02	.1004-01	.1122-01	25.36	.2105	.4233	560.2	.1243-03	.1389-03
4	10.000	6.0000	207.00	.7404-01	.8947-01	.9987-01	25.52	1.889	.4200	555.8	.1108-02	.1237-02
4	11.000	3.0000	208.00	.2948-01	.3565-01	.3982-01	25.43	.7497	.4219	558.3	.4415-03	.4930-03
4	11.000	4.0000	209.00	.5125-01	.6196-01	.6919-01	25.45	1.305	.4214	557.5	.7672-03	.8567-03
4	11.000	5.0000	210.00	.3717-01	.4493-01	.5016-01	25.49	.9475	.4206	556.5	.5563-03	.6211-03
4	12.000	1.0000	211.00	.6682-02	.8078-02	.9021-02	25.44	.1700	.4216	557.9	.1000-03	.1117-03
4	12.000	2.0000	212.00	.6935-02	.8385-02	.9365-02	25.43	1.763	.4219	558.3	.1038-03	.1160-03
4	12.000	3.0000	213.00	.4204-01	.5083-01	.5677-01	25.44	1.069	.4217	558.0	.6295-03	.7029-03
4	12.000	5.0000	215.00	.5644-01	.6831-01	.7634-01	25.31	1.429	.4245	561.8	.8458-03	.9452-03
4	12.000	6.0000	216.00	.4501-01	.5440-01	.6072-01	25.51	1.148	.4202	556.0	.6736-03	.7520-03
4	12.000	7.0000	217.00	.4855-01	.5866-01	.6548-01	25.52	1.239	.4200	555.7	.7264-03	.8109-03
4	13.000	3.0000	218.00	.4554-01	.5506-01	.6148-01	25.45	1.159	.4215	557.8	.6818-03	.7613-03
4	13.000	5.0000	220.00	.5926-01	.7160-01	.7992-01	25.53	1.513	.4196	555.3	.8867-03	.9997-03
4	14.000	2.0000	222.00	.8206-02	.9901-02	.1104-01	25.71	.2110	.4157	550.0	.1226-03	.1368-03
4	14.000	6.0000	223.00	.2680-01	.3239-01	.3616-01	25.50	.6835	.4203	556.1	.4011-03	.4478-03

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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CANOPY (83-0)

OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
5	2.168	5.280	30.00	.0000	180.3	1330.	325.2	.2428	206.1	.9888-04	3715.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540
5	.0000	.1437

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
5	1.0000	4.0000	177.00	.1474	.1774	.1975	27.61	4.068	.4088	554.0	.2155-02	.2400-02
5	1.0000	6.0000	178.00	.2173	.2616	.2913	27.58	5.993	.4094	554.8	.3179-02	.3540-02
5	2.0000	6.0000	179.00	.2639	.3178	.3539	27.56	7.273	.4098	555.4	.3861-02	.4300-02
5	3.0000	3.0000	180.00	.1623	.1953	.2174	27.63	4.483	.4084	553.4	.2373-02	.2642-02
5	3.0000	4.0000	181.00	.1683	.2025	.2255	27.62	4.648	.4086	553.7	.2461-02	.2740-02
5	3.0000	5.0000	182.00	.2415	.2906	.3236	27.59	6.663	.4091	554.4	.3532-02	.3933-02
5	4.0000	1.0000	183.00	.2198-01	.2645-01	.2944-01	27.62	.6070	.4086	553.7	.3214-03	.3578-03
5	4.0000	2.0000	184.00	.2763-01	.3325-01	.3702-01	27.62	.7632	.4085	553.6	.4041-03	.4499-03
5	4.0000	3.0000	185.00	.1204	.1448	.1612	27.63	3.325	.4084	553.4	.1760-02	.1960-02
5	4.0000	4.0000	186.00	.1491	.1794	.1998	27.61	4.116	.4088	554.0	.2181-02	.2428-02
5	4.0000	5.0000	187.00	.2398	.2887	.3214	27.60	6.619	.4090	554.3	.3508-02	.3906-02
5	4.0000	6.0000	188.00	.2175	.2619	.2917	27.56	5.995	.4099	555.4	.3183-02	.3544-02
5	5.0000	3.0000	189.00	.8350-01	.1005	.1119	27.60	2.304	.4090	554.3	.1221-02	.1360-02
5	5.0000	4.0000	190.00	.1309	.1576	.1755	27.58	3.611	.4094	554.8	.1915-02	.2133-02
5	5.0000	5.0000	191.00	.2206	.2656	.2957	27.58	6.085	.4093	554.7	.3227-02	.3593-02
5	5.0000	6.0000	192.00	.4555-01	.5482-01	.6104-01	27.61	1.258	.4088	553.9	.6662-03	.7417-03
5	6.0000	2.0000	193.00	.1110	.1337	.1489	27.55	3.058	.4101	555.7	.1624-02	.1809-02
5	6.0000	3.0000	194.00	.5765-01	.6941-01	.7729-01	27.57	1.590	.4096	555.0	.8435-03	.9392-03
5	7.0000	4.0000	195.00	.1063	.1280	.1426	27.56	2.931	.4097	555.2	.1556-02	.1732-02
5	7.0000	5.0000	196.00	.1226	.1476	.1643	27.56	3.378	.4098	555.3	.1793-02	.1997-02
5	8.0000	1.0000	197.00	.1364-01	.1641-01	.1827-01	27.65	.3771	.4079	552.8	.1994-03	.2220-03
5	8.0000	2.0000	198.00	.1795-01	.2161-01	.2405-01	27.62	.4958	.4086	553.7	.2626-03	.2923-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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(RAGC20)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
5	8.0000	3.0000	199.00	.3634-01	.4375-01	.4872-01	27.56	1.002	.4097	555.2	.5317-03	.5921-03
5	8.0000	4.0000	200.00	.8026-01	.9664-01	.1076	27.55	2.211	.4101	555.7	.1174-02	.1308-02
5	8.0000	5.0000	201.00	.1291	.1654	.1731	27.54	3.555	.4102	555.8	.1889-02	.2104-02
5	8.0000	6.0000	202.00	.9631-01	.1160	.1292	27.52	2.651	.4106	556.4	.1409-02	.1570-02
5	9.0000	3.0000	203.00	.2710-01	.3263-01	.3633-01	27.56	.7468	.4098	555.3	.3965-03	.4415-03
5	9.0000	4.0000	204.00	.5595-01	.6746-01	.7520-01	27.36	1.531	.4139	560.9	.8196-03	.9136-03
5	9.0000	5.0000	205.00	.1108	.1334	.1486	27.53	3.050	.4104	556.1	.1621-02	.1805-02
5	10.000	2.0000	206.00	.1166-01	.1404-01	.1563-01	27.60	.3218	.4090	554.2	.1706-03	.1899-03
5	10.000	6.0000	207.00	.6519-01	.7852-01	.8746-01	27.51	1.793	.4108	556.7	.9541-03	.1063-02
5	11.000	3.0000	208.00	.2445-01	.2943-01	.3277-01	27.57	.6739	.4097	555.2	.3576-03	.3983-03
5	11.000	4.0000	209.00	.3812-01	.4591-01	.5114-01	27.51	1.049	.4109	556.8	.5579-03	.6214-03
5	11.000	5.0000	210.00	.2629-01	.3167-01	.3527-01	27.50	.7231	.4109	556.9	.3848-03	.4286-03
5	12.000	1.0000	211.00	.5599-02	.6737-02	.7499-02	27.65	.1548	.4079	552.8	.8188-04	.9114-04
5	12.000	2.0000	212.00	.1186-01	.1427-01	.1589-01	27.60	.3273	.4089	554.1	.1734-03	.1931-03
5	12.000	3.0000	213.00	.3180-01	.3830-01	.4265-01	27.54	.8758	.4103	555.9	.4654-03	.5183-03
5	12.000	5.0000	215.00	.1488-01	.1793-01	.1997-01	27.49	.4091	.4113	557.4	.2179-03	.2427-03
5	12.000	6.0000	216.00	.4085-01	.4920-01	.5481-01	27.50	1.123	.4111	557.1	.5978-03	.6659-03
5	12.000	7.0000	217.00	.4418-01	.5321-01	.5927-01	27.50	1.215	.4110	557.0	.6465-03	.7202-03
5	13.000	3.0000	218.00	.2914-01	.3509-01	.3908-01	27.53	.8024	.4103	556.0	.4264-03	.4749-03
5	13.000	5.0000	220.00	.4144-01	.4989-01	.5555-01	27.59	1.143	.4093	554.6	.6062-03	.6750-03
5	14.000	2.0000	222.00	.3247-02	.3903-02	.4342-02	27.78	.9021-01	.4052	549.1	.4745-04	.5278-04
5	14.000	6.0000	223.00	.2635-01	.3174-01	.3535-01	27.49	.7243	.4112	557.3	.3856-03	.4296-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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CANOPY (83-0)

OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
6	2.064	5.280	30.50	.0000	167.2	1308.	319.5	.2254	202.5	.9341-04	3683.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1382
6	.0000	

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
6	1.0000	4.0000	177.00	.1327	.1605	.1792	25.51	3.386	.4217	561.5	.2002-02	.2236-02
6	1.0000	6.0000	178.00	.2096	.2535	.2831	25.51	5.348	.4218	561.6	.3162-02	.3532-02
6	2.0000	6.0000	179.00	.2793	.3378	.3772	25.50	7.124	.4219	561.9	.4214-02	.4706-02
6	3.0000	3.0000	180.00	.1431	.1730	.1932	25.51	3.651	.4217	561.6	.2159-02	.2411-02
6	3.0000	4.0000	181.00	.1578	.1908	.2131	25.51	4.027	.4217	561.5	.2381-02	.2659-02
6	3.0000	5.0000	182.00	.1842	.2227	.2488	25.51	4.700	.4217	561.6	.2779-02	.3104-02
6	4.0000	1.0000	183.00	.1683-01	.2035-01	.2273-01	25.47	4.286	.4226	562.7	.2539-03	.2836-03
6	4.0000	2.0000	184.00	.1857-01	.2246-01	.2508-01	25.48	4.731	.4225	562.5	.2801-03	.3129-03
6	4.0000	3.0000	185.00	.7479-01	.9043-01	.1010	25.51	1.908	.4218	561.7	.1128-02	.1260-02
6	4.0000	4.0000	186.00	.7808-01	.9441-01	.1054	25.51	1.991	.4219	561.8	.1178-02	.1315-02
6	4.0000	5.0000	187.00	.1802	.2179	.2434	25.51	4.599	.4217	561.6	.2719-02	.3037-02
6	4.0000	6.0000	188.00	.2019	.2441	.2726	25.50	5.148	.4220	561.9	.3046-02	.3402-02
6	5.0000	3.0000	189.00	.4564-01	.5519-01	.6164-01	25.49	1.163	.4222	562.2	.6895-03	.7690-03
6	5.0000	4.0000	190.00	.7806-01	.9439-01	.1054	25.50	1.990	.4221	562.1	.1178-02	.1315-02
6	5.0000	5.0000	191.00	.1608	.1945	.2172	25.51	4.102	.4219	561.8	.2426-02	.2710-02
6	6.0000	2.0000	192.00	.2057-01	.2488-01	.2779-01	25.47	5.238	.4228	563.0	.3104-03	.3467-03
6	6.0000	6.0000	193.00	.8036-01	.9790-01	.1093	25.49	2.064	.4222	562.2	.1221-02	.1364-02
6	7.0000	3.0000	194.00	.3659-01	.4425-01	.4943-01	25.47	.9319	.4227	562.8	.5521-03	.6167-03
6	7.0000	4.0000	195.00	.7752-01	.9375-01	.1047	25.48	1.975	.4224	562.5	.1170-02	.1306-02
6	7.0000	5.0000	196.00	.8095-01	.9789-01	.1093	25.49	2.063	.4223	562.3	.1221-02	.1364-02
6	8.0000	1.0000	197.00	.1184-01	.1432-01	.1600-01	25.44	.3011	.4234	563.7	.1786-03	.1996-03
6	8.0000	2.0000	198.00	.1476-01	.1786-01	.1995-01	25.44	.3755	.4233	563.7	.2228-03	.2489-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
6	8.0000	3.0000	199.00	.2172-01	.2627-01	.2935-01	25.45	.5526	.4232	563.5	.3277-03	.3661-03
6	8.0000	4.0000	200.00	.4944-01	.5980-01	.6680-01	25.46	1.259	.4229	563.1	.7160-03	.8333-03
6	8.0000	5.0000	201.00	.1031	.1247	.1393	25.47	2.627	.4226	562.7	.1556-02	.1738-02
6	8.0000	6.0000	202.00	.7352-01	.8892-01	.9932-01	25.48	1.873	.4225	562.6	.1109-02	.1239-02
6	9.0000	3.0000	203.00	.1930-01	.2335-01	.2609-01	25.43	.4909	.4235	564.0	.2913-03	.3255-03
6	9.0000	4.0000	204.00	.2961-01	.3586-01	.4010-01	25.28	.7484	.4269	568.4	.4473-03	.5002-03
6	9.0000	5.0000	205.00	.8075-01	.9766-01	.1091	25.47	2.056	.4227	562.9	.1218-02	.1361-02
6	10.000	2.0000	206.00	.1177-01	.1424-01	.1591-01	25.38	.2986	.4247	565.5	.1776-03	.1985-03
6	10.000	6.0000	207.00	.7411-01	.8964-01	.1001	25.47	1.887	.4228	563.0	.1118-02	.1249-02
6	11.000	3.0000	208.00	.1757-01	.2126-01	.2376-01	25.42	.4468	.4237	564.1	.2653-03	.2964-03
6	11.000	4.0000	209.00	.2742-01	.3317-01	.3706-01	25.43	.6974	.4235	563.9	.4139-03	.4624-03
6	11.000	5.0000	210.00	.1395-01	.1688-01	.1885-01	25.46	.3552	.4229	563.2	.2106-03	.2352-03
6	12.000	1.0000	211.00	.1009-01	.1221-01	.1364-01	25.46	.2570	.4229	563.1	.1523-03	.1702-03
6	12.000	2.0000	212.00	.1563-01	.1891-01	.2112-01	25.44	.3975	.4234	563.8	.2359-03	.2635-03
6	12.000	3.0000	213.00	.2465-01	.2983-01	.3333-01	25.42	.6268	.4237	564.2	.3721-03	.4158-03
6	12.000	5.0000	215.00	.2481-01	.3001-01	.3353-01	25.44	.6311	.4233	563.7	.3744-03	.4183-03
6	12.000	6.0000	216.00	.5059-01	.6119-01	.6835-01	25.46	1.288	.4229	563.1	.7633-03	.8537-03
6	12.000	7.0000	217.00	.5661-01	.6848-01	.7649-01	25.46	1.442	.4228	563.0	.8543-03	.9543-03
6	13.000	3.0000	218.00	.1949-01	.2358-01	.2634-01	25.44	.4958	.4233	563.7	.2941-03	.3286-03
6	13.000	5.0000	220.00	.2560-01	.3096-01	.3457-01	25.51	.6531	.4218	561.7	.3862-03	.4313-03
6	14.000	2.0000	222.00	.5930-02	.7158-02	.7985-02	25.72	.1525	.4172	555.5	.8933-04	.9965-04
6	14.000	6.0000	223.00	.3211-01	.3883-01	.4338-01	25.46	.8174	.4229	563.1	.4845-03	.5412-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-O, 60-O, 83-O

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(RAGC20)

CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
7	1.943	5.280	35.00	.0000	159.9	1321.	322.9	.2155	204.7	.8836-04	3702.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1353										
7	.0000											

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
7	1.0000	4.0000	177.00	.1459	.1752	.1947	26.15	3.815	.4015	540.3	.2251-02	.2502-02
7	1.0000	6.0000	178.00	.1304	.2285	.2541	26.14	4.976	.4017	540.7	.2938-02	.3266-02
7	2.0000	6.0000	179.00	.2272	.2728	.3032	26.13	5.935	.4020	541.0	.3506-02	.3897-02
7	3.0000	3.0000	180.00	.1576	.1892	.2102	26.17	4.124	.4010	539.7	.2431-02	.2702-02
7	3.0000	4.0000	181.00	.1175	.1411	.1568	26.16	3.074	.4011	539.9	.1813-02	.2015-02
7	3.0000	5.0000	182.00	.8347-01	.1002	.1114	26.15	2.183	.4014	540.2	.1288-02	.1432-02
7	4.0000	1.0000	183.00	.1389-01	.1667-01	.1853-01	26.14	.3630	.4016	540.5	.2143-03	.2382-03
7	4.0000	2.0000	184.00	.1557-01	.1869-01	.2078-01	26.15	.4072	.4014	540.2	.2403-03	.2670-03
7	4.0000	3.0000	185.00	.6182-01	.7421-01	.8247-01	26.17	1.617	.4011	539.8	.9538-03	.1060-02
7	4.0000	4.0000	186.00	.3754-01	.4507-01	.5009-01	26.16	.9819	.4013	540.1	.5793-03	.6439-03
7	4.0000	5.0000	187.00	.8237-01	.9949-01	.1106	26.15	2.167	.4013	540.2	.1279-02	.1421-02
7	4.0000	6.0000	188.00	.1204	.1446	.1607	26.13	3.146	.4019	540.9	.1859-02	.2066-02
7	5.0000	3.0000	189.00	.4422-01	.5309-01	.5901-01	26.14	1.156	.4017	540.6	.6824-03	.7585-03
7	5.0000	4.0000	190.00	.6157-01	.7392-01	.8217-01	26.13	1.609	.4018	540.8	.9502-03	.1056-02
7	5.0000	5.0000	191.00	.1106	.1327	.1475	26.14	2.890	.4016	540.5	.1706-02	.1896-02
7	6.0000	1.0000	192.00	.1349-01	.1620-01	.1801-01	26.13	.3526	.4019	540.9	.2082-03	.2315-03
7	6.0000	2.0000	193.00	.5067-01	.6085-01	.6764-01	26.12	1.324	.4021	541.1	.7820-03	.8693-03
7	7.0000	3.0000	194.00	.1677-01	.2013-01	.2238-01	26.11	.4378	.4023	541.4	.2588-03	.2877-03
7	7.0000	4.0000	195.00	.3730-01	.4479-01	.4979-01	26.11	.9740	.4022	541.4	.5757-03	.6400-03
7	7.0000	5.0000	196.00	.4107-01	.4932-01	.5482-01	26.12	1.073	.4023	541.2	.6339-03	.7046-03
7	8.0000	1.0000	197.00	.8100-02	.9728-02	.1081-01	26.11	.2115	.4023	541.4	.1250-03	.1390-03
7	8.0000	2.0000	198.00	.9713-02	.1167-01	.1297-01	26.10	.2535	.4025	541.7	.1499-03	.1667-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC20)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
7	8.0000	3.0000	199.00	.2055-01	.2468-01	.2744-01	26.09	.5361	.4028	542.1	.3172-03	.3527-03
7	8.0000	4.0000	200.00	.4255-01	.5112-01	.5683-01	26.09	1.110	.4028	542.1	.6570-03	.7305-03
7	8.0000	5.0000	201.00	.7340-01	.8816-01	.9801-01	26.10	1.916	.4025	541.8	.1133-02	.1260-02
7	8.0000	6.0000	202.00	.5617-01	.6747-01	.7501-01	26.09	1.466	.4027	542.0	.8672-03	.9641-03
7	9.0000	3.0000	203.00	.1362-01	.1637-01	.1820-01	26.06	.3551	.4034	542.9	.2103-03	.2339-03
7	9.0000	4.0000	204.00	.2209-01	.2654-01	.2951-01	26.07	.5760	.4032	542.6	.3411-03	.3792-03
7	9.0000	5.0000	205.00	.6094-01	.7320-01	.8138-01	26.08	1.590	.4029	542.2	.9408-03	.1046-02
7	10.000	2.0000	206.00	.8935-02	.1073-01	.1193-01	26.11	.2333	.4022	541.3	.1379-03	.1533-03
7	10.000	6.0000	207.00	.7039-01	.8456-01	.9402-01	26.08	1.836	.4030	542.4	.1087-02	.1208-02
7	11.000	3.0000	208.00	.1256-01	.1509-01	.1678-01	26.06	.3272	.4035	543.1	.1939-03	.2156-03
7	11.000	4.0000	209.00	.1595-01	.1916-01	.2131-01	26.06	.4152	.4040	543.7	.2463-03	.2739-03
7	12.000	5.0000	210.00	.1203-01	.1445-01	.1607-01	26.06	.3135	.4035	543.1	.1858-03	.2066-03
7	12.000	1.0000	211.00	.8773-02	.1054-01	.1171-01	26.10	.2290	.4025	541.6	.1354-03	.1506-03
7	12.000	2.0000	212.00	.1594-01	.1915-01	.2129-01	26.07	.4156	.4031	542.5	.2461-03	.2736-03
7	12.000	3.0000	213.00	.1685-01	.2024-01	.2251-01	26.04	.4388	.4038	543.5	.2602-03	.2893-03
7	12.000	5.0000	215.00	.2381-01	.2861-01	.3182-01	26.03	.6196	.4042	544.0	.3677-03	.4089-03
7	12.000	6.0000	216.00	.5270-01	.6332-01	.7040-01	26.06	1.374	.4034	542.9	.8137-03	.9048-03
7	12.000	7.0000	217.00	.5645-01	.6781-01	.7540-01	26.07	1.472	.4031	542.6	.8716-03	.9691-03
7	13.000	3.0000	218.00	.1208-01	.1452-01	.1615-01	26.02	.3144	.4043	544.1	.1866-03	.2075-03
7	13.000	5.0000	220.00	.2233-01	.2682-01	.2982-01	26.09	.5826	.4027	541.9	.3447-03	.3832-03
7	14.000	2.0000	222.00	.6049-02	.7260-02	.8067-02	26.20	1.585	.4004	538.8	.9332-04	.1037-03
7	14.000	6.0000	223.00	.3386-01	.4063-01	.4525-01	26.04	.8816	.4040	543.7	.5229-03	.5815-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 55-0, 60-0, 83-0

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CANOPY (83-0)

OH110, MODEL 83-0, ORBITER CANOPY

(RAGC21)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
8	1.954	5.280	20.00	.0000	160.0	1317.	321.8	.2156	204.0	.8871-04	3696.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1353
8	.0000	

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
8	1.0000	4.0000	177.00	.1967	.2373	.2646	25.43	5.001	.4154	557.1	.3040-02	.3390-02
8	1.0000	6.0000	178.00	.3151	.3802	.4239	25.42	8.011	.4155	557.3	.4871-02	.5432-02
8	2.0000	6.0000	179.00	.3522	.4249	.4739	25.42	8.953	.4157	557.4	.5445-02	.6072-02
8	3.0000	3.0000	180.00	.2030	.2449	.2731	25.43	5.162	.4154	557.1	.3139-02	.3500-02
8	3.0000	4.0000	181.00	.2100	.2533	.2824	25.43	5.339	.4154	557.1	.3246-02	.3619-02
8	3.0000	5.0000	182.00	.2585	.3119	.3478	25.43	6.574	.4154	557.1	.3997-02	.4456-02
8	4.0000	1.0000	183.00	.3849-01	.4644-01	.5180-01	25.40	.9775	.4161	558.0	.5951-03	.6637-03
8	4.0000	2.0000	184.00	.4623-01	.5579-01	.6221-01	25.40	1.174	.4160	557.9	.7148-03	.7972-03
8	4.0000	3.0000	185.00	.1679	.2026	.2259	25.43	4.270	.4154	557.1	.2596-02	.2894-02
8	4.0000	4.0000	186.00	.2075	.2503	.2791	25.43	5.276	.4154	557.1	.3208-02	.3577-02
8	4.0000	5.0000	187.00	.2620	.3160	.3524	25.43	6.661	.4154	557.1	.4050-02	.4515-02
8	4.0000	6.0000	188.00	.2976	.3591	.4004	25.42	7.565	.4157	557.5	.4601-02	.5131-02
8	5.0000	3.0000	189.00	.1935	.2334	.2603	25.41	4.916	.4159	557.7	.2991-02	.3336-02
8	5.0000	4.0000	190.00	.2677	.3231	.3603	25.41	6.803	.4159	557.7	.4140-02	.4616-02
8	5.0000	5.0000	191.00	.2840	.3426	.3820	25.42	7.218	.4156	557.4	.4390-02	.4896-02
8	6.0000	2.0000	192.00	.5806-01	.7007-01	.7814-01	25.39	1.474	.4163	558.4	.8978-03	.1001-02
8	6.0000	6.0000	193.00	.1771	.2136	.2382	25.41	4.499	.4159	557.7	.2737-02	.3053-02
8	7.0000	3.0000	194.00	.9934-01	.1199	.1337	25.38	2.521	.4165	558.5	.1536-02	.1713-02
8	7.0000	4.0000	195.00	.2009	.2425	.2704	25.39	5.103	.4161	558.1	.3107-02	.3465-02
8	7.0000	5.0000	196.00	.2137	.2578	.2875	25.40	5.427	.4160	557.9	.3304-02	.3684-02
8	8.0000	1.0000	197.00	.2901-01	.3381-01	.3772-01	25.34	.7096	.4174	559.8	.4332-03	.4832-03
8	8.0000	2.0000	198.00	.5078-01	.6130-01	.6839-01	25.35	1.287	.4173	559.6	.7855-03	.8763-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGC21)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
8	8.0000	3.0000	199.00	.1047	.1264	.1410	25.36	2.655	.4169	559.1	.1619-02	.1806-02
8	8.0000	4.0000	200.00	.1866	.2253	.2512	25.37	4.736	.4166	558.7	.2886-02	.3219-02
8	8.0000	5.0000	201.00	.2693	.3249	.3624	25.39	6.836	.4163	558.3	.4163-02	.4643-02
8	8.0000	6.0000	202.00	.1397	.1686	.1880	25.39	3.547	.4163	558.3	.2160-02	.2409-02
8	9.0000	3.0000	203.00	.1446	.1745	.1947	25.34	3.663	.4174	559.8	.2236-02	.2495-02
8	9.0000	4.0000	204.00	.2184	.2636	.2941	25.36	5.538	.4170	559.2	.3378-02	.3768-02
8	9.0000	5.0000	205.00	.3029	.3656	.4078	25.38	7.688	.4165	558.6	.4685-02	.5225-02
8	10.000	2.0000	206.00	.4751-01	.5735-01	.6397-01	25.35	1.204	.4172	559.5	.7348-03	.8197-03
8	10.000	6.0000	207.00	.1087	.1311	.1463	25.38	2.758	.4165	558.5	.1680-02	.1874-02
8	11.000	3.0000	208.00	.6894-01	.8323-01	.9286-01	25.33	1.746	.4176	560.0	.1066-02	.1190-02
8	11.000	4.0000	209.00	.5190-01	.6265-01	.6989-01	25.34	1.315	.4174	559.7	.8028-03	.8956-03
8	11.000	5.0000	210.00	.8457-01	.1021	.1138	25.36	2.145	.4168	559.0	.1308-02	.1459-02
8	12.000	1.0000	211.00	.3684-01	.4446-01	.4959-01	25.36	.9343	.4172	559.0	.5697-03	.6355-03
8	12.000	2.0000	212.00	.4922-01	.5942-01	.6628-01	25.35	1.248	.4172	559.6	.7613-03	.8493-03
8	12.000	3.0000	213.00	.8873-01	.1071	.1195	25.34	2.248	.4175	559.9	.1372-02	.1531-02
8	12.000	5.0000	215.00	.1111	.1342	.1497	25.34	2.816	.4174	559.8	.1719-02	.1918-02
8	12.000	6.0000	216.00	.6875-01	.8297-01	.9254-01	25.38	1.745	.4165	558.6	.1063-02	.1186-02
8	12.000	7.0000	217.00	.7245-01	.8744-01	.9752-01	25.38	1.839	.4165	558.5	.1120-02	.1250-02
8	13.000	3.0000	218.00	.9720-01	.1173	.1309	25.34	2.463	.4174	559.8	.1503-02	.1677-02
8	13.000	5.0000	220.00	.8673-01	.1047	.1167	25.40	2.203	.4160	557.9	.1341-02	.1495-02
8	14.000	2.0000	222.00	.4118-01	.4958-01	.5522-01	25.67	1.057	.4101	550.0	.6356-03	.7078-03
8	14.000	6.0000	223.00	.3563-01	.4301-01	.4797-01	25.36	.9038	.4168	559.0	.5511-03	.6147-03

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OH110 (ARC3.5HWT-253; ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 83-0, ORBITER CANOPY

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(RAGC22)

CANOPY (83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
10	3.901	5.280	20.00	.0000	310.3	1293.	315.7	.4188	200.1	.1755-03	3661.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1882										
10	.0000											

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
10	1.0000	4.0000	177.00	.2152	.2598	.2898	34.60	7.447	.4173	549.1	.2362-02	.2635-02
10	1.0000	6.0000	178.00	.3372	.4072	.4544	34.54	11.65	.4183	550.4	.3702-02	.4131-02
10	2.0000	6.0000	179.00	.3886	.4693	.5237	34.53	13.42	.4185	550.7	.4267-02	.4761-02
10	3.0000	3.0000	180.00	.2114	.2552	.2846	34.65	7.327	.4165	548.0	.2320-02	.2588-02
10	3.0000	4.0000	181.00	.2319	.2798	.3121	34.63	8.029	.4168	548.5	.2545-02	.2838-02
10	3.0000	5.0000	182.00	.2913	.3516	.3923	34.60	10.08	.4173	549.1	.3197-02	.3567-02
10	4.0000	1.0000	183.00	.5756-01	.6947-01	.7749-01	34.64	1.994	.4167	548.3	.6317-03	.7045-03
10	4.0000	2.0000	184.00	.6980-01	.8424-01	.9395-01	34.65	2.418	.4166	548.1	.7660-03	.8543-03
10	4.0000	3.0000	185.00	.1878	.2266	.2528	34.65	6.508	.4164	547.9	.2061-02	.2298-02
10	4.0000	4.0000	186.00	.2302	.2779	.3100	34.63	7.972	.4169	548.6	.2527-02	.2819-02
10	4.0000	5.0000	187.00	.2795	.3374	.3763	34.61	9.672	.4172	549.0	.3067-02	.3422-02
10	4.0000	6.0000	188.00	.3335	.4027	.4493	34.53	11.52	.4184	550.5	.3661-02	.4086-02
10	5.0000	3.0000	189.00	.2087	.2519	.2810	34.63	7.228	.4168	548.4	.2290-02	.2553-02
10	5.0000	4.0000	190.00	.2750	.3320	.3704	34.61	9.519	.4172	549.0	.3019-02	.3368-02
10	5.0000	5.0000	191.00	.3026	.3653	.4075	34.60	10.47	.4173	549.0	.3321-02	.3705-02
10	6.0000	2.0000	192.00	.1874	.2264	.2527	34.42	6.449	.4202	553.0	.2058-02	.2298-02
10	6.0000	6.0000	193.00	.2152	.2598	.2900	34.53	7.429	.4185	550.6	.2363-02	.2636-02
10	7.0000	3.0000	194.00	.1318	.1591	.1775	34.60	4.561	.4173	549.1	.1447-02	.1614-02
10	7.0000	4.0000	195.00	.2014	.2431	.2713	34.59	6.966	.4175	549.4	.2211-02	.2466-02
10	7.0000	5.0000	196.00	.2068	.2497	.2786	34.58	7.151	.4177	549.6	.2270-02	.2533-02
10	8.0000	1.0000	197.00	.3577-01	.4315-01	.4812-01	34.72	1.242	.4153	546.4	.3924-03	.4376-03
10	8.0000	2.0000	198.00	.5730-01	.6914-01	.7711-01	34.66	1.986	.4163	547.8	.6287-03	.7012-03

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RACC22)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
10	8.0000	3.0000	199.00	.1605	.1938	.2162	34.58	5.550	.4177	549.6	.1762-02	.1966-02
10	8.0000	4.0000	200.00	.2035	.2459	.2746	34.41	7.003	.4204	553.2	.2236-02	.2496-02
10	8.0000	5.0000	201.00	.2722	.3287	.3668	34.54	9.403	.4182	550.3	.2989-02	.3335-02
10	8.0000	6.0000	202.00	.1465	.1769	.1975	34.50	5.054	.4190	551.3	.1609-02	.1795-02
10	9.0000	3.0000	203.00	.1615	.1950	.2176	34.54	5.578	.4182	550.3	.1773-02	.1978-02
10	9.0000	4.0000	204.00	.2148	.2595	.2895	34.52	7.415	.4187	550.9	.2359-02	.2632-02
10	9.0000	5.0000	205.00	.2870	.3466	.3868	34.52	9.908	.4186	550.8	.3151-02	.3517-02
10	10.0000	2.0000	206.00	.6833-01	.8243-01	.9191-01	34.72	2.372	.4154	546.6	.7496-03	.8358-03
10	10.0000	3.0000	207.00	.1112	.1343	.1499	34.48	3.834	.4193	551.8	.1221-02	.1363-02
10	11.0000	6.0000	208.00	.7631-01	.9217-01	.1029	34.51	2.634	.4188	551.0	.8380-03	.9352-03
10	11.0000	4.0000	209.00	.7293-01	.8811-01	.9835-01	34.45	2.512	.4198	552.3	.8011-03	.8942-03
10	11.0000	5.0000	210.00	.7715-01	.9321-01	.1040	34.47	2.659	.4195	552.0	.8474-03	.9458-03
10	12.0000	1.0000	211.00	.5195-01	.6270-01	.6994-01	34.63	1.799	.4169	548.5	.5702-03	.6360-03
10	12.0000	2.0000	212.00	.6611-01	.7985-01	.8911-01	34.51	2.281	.4188	551.1	.7260-03	.8102-03
10	12.0000	3.0000	213.00	.9496-01	.1147	.1281	34.45	3.271	.4198	552.4	.1043-02	.1164-02
10	12.0000	5.0000	215.00	.1142	.1380	.1540	34.44	3.933	.4199	552.5	.1254-02	.1400-02
10	12.0000	6.0000	216.00	.7299-01	.8819-01	.9844-01	34.44	2.514	.4199	552.5	.8018-03	.8950-03
10	12.0000	7.0000	217.00	.7244-01	.8753-01	.9770-01	34.45	2.495	.4198	552.4	.7958-03	.8883-03
10	13.0000	3.0000	218.00	.1151	.1390	.1552	34.43	3.962	.4200	552.7	.1284-02	.1411-02
10	13.0000	5.0000	220.00	.9298-01	.1123	.1253	34.54	3.211	.4183	550.5	.1021-02	.1139-02
10	14.0000	2.0000	222.00	.4655-01	.5624-01	.6278-01	34.45	1.604	.4198	552.4	.5113-03	.5707-03
10	14.0000	6.0000	223.00	.4528-01	.5472-01	.6109-01	34.42	1.559	.4202	552.9	.4975-03	.5554-03

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CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

(RAGC22)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
11	3.887	5.280	22.50	.0000	308.4	1291.	315.2	.4163	199.8	.1749-03	3658.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1875										
11	.0000											

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
11	1.0000	4.0000	177.00	.1952	.2368	.2651	33.58	6.554	.4314	566.8	.2156-02	.2414-02
11	1.0000	6.0000	178.00	.2977	.3613	.4045	33.54	9.984	.4320	567.6	.3289-02	.3683-02
11	1.0000	3.0000	179.00	.3356	.4074	.4562	33.51	11.24	.4326	568.3	.3708-02	.4153-02
11	3.0000	4.0000	180.00	.1949	.2365	.2648	33.58	6.546	.4313	566.6	.2153-02	.2410-02
11	3.0000	4.0000	181.00	.2039	.2474	.2770	33.56	6.842	.4317	567.1	.2252-02	.2521-02
11	3.0000	5.0000	182.00	.2549	.3093	.3463	33.54	8.547	.4321	567.6	.2816-02	.3153-02
11	4.0000	1.0000	183.00	.4826-01	.5857-01	.6557-01	33.55	1.619	.4318	567.3	.5332-03	.5969-03
11	4.0000	2.0000	184.00	.5950-01	.7221-01	.8085-01	33.56	1.997	.4317	567.2	.6574-03	.7360-03
11	4.0000	3.0000	185.00	.1714	.2080	.2329	33.56	5.753	.4317	567.1	.1894-02	.2120-02
11	4.0000	4.0000	186.00	.2141	.2598	.2909	33.54	7.179	.4321	567.6	.2365-02	.2648-02
11	4.0000	5.0000	187.00	.2561	.3109	.3481	33.53	8.586	.4323	567.9	.2830-02	.3169-02
11	5.0000	6.0000	188.00	.2642	.3207	.3591	33.50	8.849	.4328	568.5	.3269-02	.3569-02
11	5.0000	3.0000	189.00	.2007	.2437	.2728	33.52	6.729	.4323	567.9	.2218-02	.2484-02
11	5.0000	1.0000	190.00	.2730	.3314	.3711	33.50	10.146	.4327	568.4	.3017-02	.3378-02
11	5.0000	5.0000	191.00	.3088	.3749	.4198	33.51	9.35	.4325	568.2	.3413-02	.3822-02
11	6.0000	2.0000	192.00	.1723	.2095	.2348	33.29	5.737	.4361	573.0	.1907-02	.2137-02
11	6.0000	6.0000	193.00	.2055	.2495	.2795	33.46	6.476	.4334	569.3	.2272-02	.2544-02
11	7.0000	3.0000	194.00	.1211	.1471	.1647	33.46	4.053	.4333	569.2	.1339-02	.1499-02
11	7.0000	4.0000	195.00	.1765	.2143	.2400	33.46	5.305	.4334	569.3	.1951-02	.2185-02
11	7.0000	5.0000	196.00	.1968	.2397	.2677	33.46	6.585	.4334	569.4	.2176-02	.2437-02
11	8.0000	1.0000	197.00	.2487-01	.3019-01	.3381-01	33.50	.8332	.4327	568.4	.2749-03	.3078-03
11	8.0000	2.0000	198.00	.4114-01	.4996-01	.5595-01	33.47	1.377	.4331	569.0	.4548-03	.5093-03

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OH110 (ARC3.5HUT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC22)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
11	8.0000	3.0000	199.00	.1359	.1651	.1849	33.43	4.545	.4338	569.9	.1503-02	.1683-02
11	8.0000	4.0000	200.00	.1789	.2175	.2437	33.28	5.954	.4362	573.1	.1979-02	.2218-02
11	8.0000	5.0000	201.00	.2442	.2965	.3322	33.43	8.163	.4338	569.9	.2699-02	.3024-02
11	8.0000	6.0000	202.00	.1328	.1613	.1807	33.43	4.439	.4339	570.0	.1468-02	.1644-02
11	9.0000	3.0000	203.00	.1340	.1628	.1824	33.42	4.479	.4341	570.2	.1482-02	.1660-02
11	9.0000	4.0000	204.00	.1658	.2014	.2256	33.40	5.537	.4343	570.5	.1833-02	.2053-02
11	9.0000	5.0000	205.00	.2624	.3187	.3571	33.42	8.769	.4341	570.3	.2901-02	.3250-02
11	10.000	2.0000	206.00	.5077-01	.5163-01	.5901-01	33.51	1.701	.4326	568.3	.5610-03	.6282-03
11	10.000	6.0000	207.00	.9401-01	.1142	.1279	33.40	3.140	.4343	570.5	.1039-02	.1165-02
11	11.000	3.0000	208.00	.6250-01	.7592-01	.8505-01	33.40	2.088	.4343	570.5	.6911-03	.7742-03
11	11.000	4.0000	209.00	.7270-01	.8832-01	.9896-01	33.37	2.426	.4348	571.2	.8039-03	.9008-03
11	11.000	5.0000	210.00	.5636-01	.6847-01	.7671-01	33.40	1.882	.4344	570.7	.6233-03	.6982-03
11	12.000	1.0000	211.00	.3850-01	.4674-01	.5235-01	33.50	1.290	.4327	568.5	.4255-03	.4765-03
11	12.000	2.0000	212.00	.5212-01	.6331-01	.7092-01	33.41	1.741	.4342	570.5	.5763-03	.6456-03
11	12.000	3.0000	213.00	.8048-01	.9777-01	.1095	33.39	2.687	.4345	570.8	.8500-03	.9971-03
11	12.030	5.0000	215.00	.9849-01	.1197	.1341	33.39	3.288	.4346	570.9	.1089-02	.1220-02
11	12.000	6.0000	216.00	.5875-01	.7137-01	.7995-01	33.40	1.963	.4343	570.5	.6497-03	.7278-03
11	12.000	7.0000	217.00	.5933-01	.7279-01	.8155-01	33.41	2.002	.4342	570.4	.6826-03	.7423-03
11	13.000	3.0000	218.00	.1055	.1281	.1435	33.41	3.524	.4341	570.3	.1166-02	.1306-02
11	13.000	5.0000	220.00	.8096-01	.9827-01	.1100	33.52	2.714	.4323	567.9	.8946-03	.1002-02
11	14.000	2.0000	222.00	.3634-01	.4404-01	.4926-01	33.78	1.227	.4281	562.4	.4010-03	.4485-03
11	14.000	6.0000	223.00	.3589-01	.4353-01	.4884-01	33.42	1.199	.4341	570.2	.3968-03	.4445-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAGC22)

CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
12	3.913	5.280	25.00	.0000	308.0	1284.	313.5	.4158	198.7	.1756-03	3648.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TH=540 .1874										
12	.0000											

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
12	1.0000	4.0000	177.00	.1828	.2207	.2463	34.17	6.247	.4180	546.1	.2006-02	.2238-02
12	1.0000	6.0000	178.00	.2643	.3192	.3561	34.15	9.026	.4183	546.5	.2900-02	.3236-02
12	2.0000	6.0000	179.00	.2827	.3415	.3810	34.13	9.650	.4186	546.9	.3103-02	.3462-02
12	3.0000	3.0000	180.00	.1920	.2197	.2451	34.19	6.223	.4177	545.7	.1997-02	.2228-02
12	3.0000	4.0000	181.00	.1860	.2270	.2532	34.18	6.426	.4178	545.9	.2062-02	.2301-02
12	3.0000	5.0000	182.00	.2377	.2871	.3203	34.16	8.122	.4181	546.3	.2608-02	.2910-02
12	4.0000	1.0000	183.00	.4594-01	.5669-01	.6326-01	34.13	1.602	.4187	547.0	.5151-03	.5748-03
12	4.0000	2.0000	184.00	.5570-01	.6726-01	.7505-01	34.15	1.902	.4184	546.6	.6112-03	.6820-03
12	4.0000	3.0000	185.00	.1677	.2025	.2259	34.17	5.731	.4180	546.1	.1840-02	.2053-02
12	4.0000	4.0000	186.00	.2103	.2539	.2833	34.15	7.182	.4183	546.5	.2307-02	.2575-02
12	4.0000	5.0000	187.00	.2611	.3153	.3518	34.16	8.921	.4182	546.4	.2865-02	.3197-02
12	4.0000	6.0000	188.00	.2518	.3041	.3393	34.13	8.594	.4186	546.9	.3083-02	.3462-02
12	5.0000	3.0000	189.00	.1712	.2067	.2307	34.14	5.843	.4185	546.8	.1878-02	.2096-02
12	5.0000	4.0000	190.00	.2276	.2749	.3068	34.12	7.766	.4188	547.2	.2498-02	.2787-02
12	5.0000	5.0000	191.00	.2846	.3437	.3835	34.14	9.717	.4185	546.7	.3123-02	.3485-02
12	6.0000	2.0000	192.00	.1302	.1573	.1755	34.09	4.438	.4194	547.9	.1429-02	.1595-02
12	6.0000	3.0000	193.00	.1504	.1938	.2163	34.11	5.472	.4190	547.4	.1761-02	.1965-02
12	7.0000	3.0000	194.00	.1105	.1335	.1490	34.08	3.767	.4195	548.0	.1213-02	.1354-02
12	7.0000	4.0000	195.00	.1537	.1857	.2073	34.08	5.239	.4195	548.1	.1688-02	.1884-02
12	7.0000	5.0000	196.00	.1766	.2134	.2381	34.09	6.022	.4193	547.8	.1939-02	.2164-02
12	8.0000	1.0000	197.00	.1240-01	.1498-01	.1673-01	34.03	.4220	.4203	549.1	.1361-03	.1520-03
12	8.0000	2.0000	198.00	.3269-01	.3950-01	.4410-01	34.02	1.112	.4205	549.3	.3589-03	.4007-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER CANOPY

(RAGC22)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
12	8.0000	3.0000	199.00	.1095	.1323	.1477	34.03	3.727	.4203	549.2	.1202-02	.1342-02
12	8.0000	4.0000	200.00	.1475	.1782	.1990	34.04	5.020	.4203	549.1	.1619-02	.1608-02
12	8.0000	5.0000	201.00	.2065	.2495	.2785	34.07	7.038	.4196	548.2	.2267-02	.2531-02
12	8.0000	6.0000	202.00	.1151	.1391	.1552	34.07	3.921	.4196	548.3	.1263-02	.1410-02
12	9.0000	3.0000	203.00	.9321-01	.1199	.1339	33.98	3.371	.4212	550.2	.1090-02	.1217-02
12	9.0000	4.0000	204.00	.1396	.1687	.1884	33.99	4.745	.4209	550.0	.1533-02	.1712-02
12	9.0000	5.0000	205.00	.2035	.2459	.2745	34.05	6.930	.4200	548.7	.2234-02	.2494-02
12	10.000	2.0000	206.00	.3600-01	.4351-01	.4857-01	34.03	1.225	.4204	549.2	.3953-03	.4413-03
12	10.000	6.0000	207.00	.7753-01	.9368-01	.1046	34.05	2.640	.4200	548.7	.8512-03	.9501-03
12	11.000	3.0000	208.00	.4669-01	.5645-01	.6304-01	33.95	1.585	.4216	550.8	.5129-03	.5727-03
12	11.000	4.0000	209.00	.7118-01	.8605-01	.9609-01	33.97	2.418	.4214	550.5	.7818-03	.8730-03
12	11.000	5.0000	210.00	.5999-01	.6888-01	.7690-01	34.02	1.939	.4206	549.4	.6258-03	.6987-03
12	12.000	1.0000	211.00	.2756-01	.3331-01	.3719-01	34.01	.9373	.4207	549.6	.3027-03	.3379-03
12	12.000	2.0000	212.00	.3576-01	.4324-01	.4829-01	33.93	1.213	.4219	551.2	.3928-03	.4387-03
12	12.000	3.0000	213.00	.6087-01	.7359-01	.8218-01	33.95	2.067	.4216	550.8	.6686-03	.7466-03
12	12.000	5.0000	215.00	.9045-01	.1093	.1221	33.99	3.075	.4209	549.9	.9933-03	.1109-02
12	12.000	6.0000	216.00	.4788-01	.5787-01	.6461-01	34.00	1.628	.4208	549.8	.5258-03	.5870-03
12	12.000	7.0000	217.00	.4942-01	.5971-01	.6656-01	34.04	1.682	.4201	548.9	.5425-03	.6056-03
12	13.000	3.0000	218.00	.8675-01	.1049	.1171	33.94	2.944	.4218	551.1	.9530-03	.1064-02
12	13.000	5.0000	220.00	.7062-01	.8533-01	.9524-01	34.07	2.407	.4196	548.2	.7753-03	.8653-03
12	14.000	2.0000	222.00	.2441-01	.2947-01	.3287-01	34.23	.8356	.4171	544.9	.2678-03	.2987-03
12	14.000	6.0000	223.00	.2911-01	.3519-01	.3929-01	34.00	.9899	.4208	549.8	.3197-03	.3570-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING. MODELS 56-O, 60-O, 83-O

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(RAGC22)

CANOPY (83-O)

OH110, MODEL 83-O, ORBITER CANOPY

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
13	3.803	5.280	27.00	.0000	308.7	1310.	320.0	.4162	202.8	.1722-03	3686.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
13	.0000	.1878										

TEST DATA

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
13	1.0000	4.0000	177.00	.1750	.2112	.2356	35.07	6.138	.4162	555.0	.1942-02	.2165-02
13	1.0000	6.0000	178.00	.2402	.2899	.3233	35.04	8.416	.4166	555.6	.2664-02	.2972-02
13	2.0000	6.0000	179.00	.2760	.3331	.3716	35.02	9.665	.4169	556.0	.3062-02	.3415-02
13	3.0000	3.0000	180.00	.1914	.2309	.2575	35.03	6.714	.4159	554.7	.2123-02	.2367-02
13	3.0000	4.0000	181.00	.2010	.2425	.2704	35.08	7.049	.4160	554.8	.2229-02	.2486-02
13	3.0000	5.0000	182.00	.2578	.3112	.3470	35.06	9.039	.4164	555.3	.2860-02	.3190-02
13	4.0000	1.0000	183.00	.3803-01	.4590-01	.5120-01	35.03	1.332	.4169	555.9	.4220-03	.4707-03
13	4.0000	2.0000	184.00	.4810-01	.5805-01	.6474-01	35.04	1.686	.4166	555.6	.5336-03	.5951-03
13	4.0000	3.0000	185.00	.1739	.2098	.2340	35.08	6.100	.4160	554.8	.1929-02	.2151-02
13	4.0000	4.0000	186.00	.2088	.2520	.2810	35.06	7.321	.4163	555.2	.2316-02	.2583-02
13	4.0000	5.0000	187.00	.2334	.3316	.3698	35.06	9.633	.4163	555.2	.3048-02	.3399-02
13	4.0000	6.0000	188.00	.2748	.3817	.4142	35.02	8.174	.4169	556.0	.2589-02	.2888-02
13	5.0000	3.0000	189.00	.1491	.1799	.2007	35.04	5.224	.4166	555.6	.1654-02	.1845-02
13	5.0000	4.0000	190.00	.2029	.2449	.2731	35.03	7.106	.4169	555.9	.2251-02	.2511-02
13	5.0000	5.0000	191.00	.2711	.3271	.3649	35.04	9.499	.4166	555.6	.3007-02	.3354-02
13	6.0000	2.0000	192.00	.1104	.1333	.1487	35.01	3.866	.4172	556.3	.1225-02	.1367-02
13	6.0000	3.0000	193.00	.1481	.1788	.1995	35.01	5.186	.4172	556.3	.1644-02	.1833-02
13	7.0000	3.0000	194.00	.1084	.1309	.1460	34.99	3.793	.4175	556.8	.1203-02	.1342-02
13	7.0000	4.0000	195.00	.1594	.1924	.2147	35.00	5.579	.4174	556.6	.1769-02	.1973-02
13	7.0000	5.0000	196.00	.1759	.2123	.2368	35.01	6.156	.4172	556.3	.1951-02	.2177-02
13	8.0000	1.0000	197.00	.1653-01	.1935-01	.2226-01	34.98	.5781	.4176	557.0	.1834-03	.2046-03
13	8.0000	2.0000	198.00	.3181-01	.3841-01	.4285-01	34.96	1.112	.4180	557.4	.3530-03	.3939-03

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 83-O, ORBITER CANOPY

(RAGC22)

RUN NUMBER	RAY	LINE	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
13	8.0000	3.0000	199.00	.8469-01	.1023	.1141	34.94	2.959	.4182	557.7	.9395-03	.1049-02
13	8.0000	4.0000	200.00	.1328	.1604	.1790	34.95	4.643	.4181	557.6	.1474-02	.1645-02
13	8.0000	5.0000	201.00	.1968	.2376	.2651	34.98	6.884	.4176	557.0	.2184-02	.2437-02
13	8.0000	6.0000	202.00	.1102	.1331	.1485	34.97	3.855	.4178	557.2	.1223-02	.1365-02
13	9.0000	3.0000	203.00	.6842-01	.8264-01	.9223-01	34.89	2.387	.4190	558.8	.7595-03	.8476-03
13	9.0000	4.0000	204.00	.1148	.1386	.1547	34.91	4.006	.4187	558.4	.1274-02	.1421-02
13	9.0000	5.0000	205.00	.1971	.2380	.2655	34.96	6.890	.4180	557.4	.2187-02	.2441-02
13	10.000	2.0000	206.00	.2481-01	.2996-01	.3342-01	34.98	8.680	.4176	556.9	.2753-03	.3072-03
13	10.000	6.0000	207.00	.7515-01	.9074-01	.1012	34.95	2.626	.4182	557.6	.6340-03	.9306-03
13	11.000	3.0000	208.00	.3249-01	.3925-01	.4380-01	34.87	1.133	.4193	559.2	.3607-03	.4026-03
13	11.000	4.0000	209.00	.6948-01	.8395-01	.9370-01	34.85	2.422	.4196	559.6	.7715-03	.8612-03
13	11.000	5.0000	210.00	.5079-01	.6134-01	.6846-01	34.91	1.773	.4188	558.5	.5638-03	.6292-03
13	12.000	1.0000	211.00	.2087-01	.2520-01	.2812-01	34.96	.7296	.4180	557.4	.2316-03	.2584-03
13	12.000	2.0000	212.00	.2737-01	.3306-01	.3689-01	34.90	.9549	.4190	558.8	.3038-03	.3390-03
13	12.000	3.0000	213.00	.4608-01	.5567-01	.6214-01	34.85	1.606	.4197	559.7	.5116-03	.5711-03
13	12.000	5.0000	215.00	.8603-01	.1039	.1160	34.88	3.001	.4192	559.0	.9551-03	.1066-02
13	12.000	6.0000	216.00	.4539-01	.5482-01	.6117-01	34.94	1.586	.4183	557.9	.5038-03	.5622-03
13	12.000	7.0000	217.00	.4715-01	.5694-01	.6353-01	34.94	1.648	.4182	557.7	.5234-03	.5840-03
13	13.000	3.0000	218.00	.7054-01	.8523-01	.9514-01	34.85	2.459	.4197	559.8	.7833-03	.8743-03
13	13.000	5.0000	220.00	.6601-01	.7968-01	.8889-01	34.85	2.310	.4173	556.6	.7324-03	.8171-03
13	14.000	2.0000	222.00	.1695-01	.2044-01	.2279-01	35.21	.5970	.4139	551.9	.1879-03	.2095-03
13	14.000	6.0000	223.00	.2726-01	.3292-01	.3674-01	34.91	.9515	.4188	558.5	.3026-03	.3377-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 83-0, ORBITER ESCAPE HATCH

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(RAGH20)

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
1	2.070	5.260	20.00	.0000	169.4	1324.	323.8	.2334	206.5	.9485-04	3705.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1403										
1	.0000											

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
1	-30.600	.19330	228.00	.8821-01	.1063	.1184	26.73	2.358	.4111	554.8	.1318-02	.1468-02
1	-30.600	.19720	229.00	.7285-01	.8775-01	.9773-01	20.75	1.949	.4108	554.3	.1088-02	.1212-02
1	-18.000	.19330	226.00	.7662-01	.9228-01	.1028	26.75	2.049	.4108	554.4	.1144-02	.1275-02
1	-18.000	.19720	227.00	.6193-01	.7458-01	.8306-01	26.77	1.658	.4104	553.8	.9250-03	.1030-02
1	-7.6000	.19330	224.00	.7367-01	.8895-01	.9906-01	26.78	1.978	.4102	553.5	.1103-02	.1229-02
1	-7.6000	.19720	225.00	.5480-01	.6598-01	.7347-01	26.80	1.469	.4098	552.9	.8183-03	.9112-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER ESCAPE HATCH

(RAGH20)

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
2	2.098	5.280	22.50	.0000	167.6	1296.	316.5	.2261	200.6	.9458-04	3666.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1383
2	.0000	

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
2	-30.600	.19330	228.00	.8786-01	.1059	.1180	25.69	2.257	.4131	545.0	.1313-02	.1463-02
2	-30.600	.19720	229.00	.7070-01	.8521-01	.9496-01	25.69	1.816	.4130	544.8	.1056-02	.1177-02
2	-18.000	.19330	226.00	.6343-01	.7644-01	.8517-01	25.72	1.631	.4124	544.0	.9475-03	.1056-02
2	-18.000	.19720	227.00	.5045-01	.6081-01	.6776-01	25.72	1.298	.4123	544.0	.7538-03	.8400-03
2	-7.6000	.19330	224.00	.6154-01	.7414-01	.8260-01	25.75	1.585	.4117	543.2	.9191-03	.1024-02
2	-7.6000	.19720	225.00	.4547-01	.5478-01	.6103-01	25.75	1.171	.4117	543.2	.6791-03	.7566-03

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGH20)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
3	2.108	5.280	25.00	.0000	168.5	1297.	316.7	.2273	200.7	.9502-04	3667.	.4000-01
3	.0000	HS SPHERE TN=540 .1387										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
3	-30.600	.19330	228.00	.7848-01	.9474-01	.1057	25.58	2.008	.4173	550.8	.1171-02	.1307-02
3	-30.600	.19720	229.00	.6600-01	.7967-01	.8887-01	25.59	1.689	.4172	550.7	.9851-03	.1099-02
3	-18.000	.19330	226.00	.5524-01	.6667-01	.7436-01	25.61	1.415	.4166	549.9	.8244-03	.9195-03
3	-18.000	.19720	227.00	.4391-01	.5300-01	.5911-01	25.62	1.125	.4165	549.8	.6553-03	.7309-03
3	-7.6000	.19330	224.00	.5027-01	.6066-01	.6764-01	25.64	1.289	.4160	549.1	.7501-03	.8365-03
3	-7.6000	.19720	225.00	.3660-01	.4416-01	.4925-01	25.64	.9383	.4160	549.2	.5461-03	.6090-03

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER ESCAPE HATCH

(RACH20)

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
4	2.099	5.280	27.50	.0000	168.4	1300.	317.5	.2272	201.2	.9473-04	3671.	.4000-01
4	PHI DEG.	HS SPHERE TH=540										
4	.0000	.1387										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
4	-30.600	.19330	228.00	.6566-01	.7933-01	.8855-01	25.53	1.677	.4196	555.2	.9824-03	.1097-02
4	-30.600	.19720	229.00	.5688-01	.6872-01	.7670-01	25.53	1.452	.4196	555.2	.8510-03	.9499-03
4	-18.000	.19330	226.00	.4953-01	.5983-01	.6677-01	25.56	1.266	.4191	554.6	.7409-03	.8269-03
4	-18.000	.19720	227.00	.3786-01	.4573-01	.5104-01	25.56	.9677	.4190	554.5	.5664-03	.6321-03
4	-7.6000	.19330	224.00	.4301-01	.5195-01	.5797-01	25.57	1.100	.4189	554.2	.6434-03	.7180-03
4	-7.6000	.19720	225.00	.3146-01	.3800-01	.4240-01	25.57	.8044	.4188	554.1	.4706-03	.5251-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0

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(RAGH20)

ESCAPE HATCH(83-0)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
5	2.168	5.280	30.00	.0000	180.3	1330.	325.2	.2428	206.1	.9888-04	3715.	.4000-01
5	.0000	HS SPHERE TW=540 .1437										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
5	-30.600	.19330	228.00	.5472-01	.6590-01	.7339-01	27.53	1.506	.4104	556.2	.8007-03	.8918-03
5	-30.600	.19720	229.00	.4667-01	.5621-01	.6260-01	27.53	1.295	.4104	556.2	.6830-03	.7607-03
5	-18.000	.19330	226.00	.4664-01	.5616-01	.6255-01	27.55	1.285	.4100	555.6	.6825-03	.7600-03
5	-18.000	.19720	227.00	.3609-01	.4345-01	.4838-01	27.56	.9944	.4099	555.4	.5280-03	.5879-03
5	-7.6000	.19330	224.00	.3747-01	.4511-01	.5022-01	27.58	1.034	.4093	554.7	.5481-03	.6103-03
5	-7.6000	.19720	225.00	.2625-01	.3159-01	.3518-01	27.58	.7240	.4093	554.7	.3839-03	.4275-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

(RAGH20)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
6	2.064	5.280	30.50	.0000	167.2	1308.	319.5	.2254	202.5	.9341-04	3683.	.4000-01
6	.0000	HS SPHERE TW=540 .1382										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
6	-30.600	.19330	228.00	.3667-01	.4434-01	.4953-01	25.48	.9344	.4224	562.4	.5532-03	.6179-03
6	-30.600	.19720	229.00	.3163-01	.3825-01	.4272-01	25.49	.8061	.4223	562.3	.4772-03	.5330-03
6	-18.000	.19330	226.00	.5183-01	.6268-01	.7000-01	25.51	1.322	.4219	561.8	.7820-03	.8733-03
6	-18.000	.19720	227.00	.4273-01	.5167-01	.5770-01	25.51	1.090	.4219	561.7	.6447-03	.7199-03
6	-7.6000	.19330	224.00	.3413-01	.4127-01	.4608-01	25.52	.8710	.4216	561.4	.5149-03	.5750-03
6	-7.6000	.19720	225.00	.2335-01	.2823-01	.3153-01	25.52	.5960	.4215	561.3	.3522-03	.3933-03

DATE 20 MAR 81

OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 83-0, ORBITER ESCAPE HATCH

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(RAGH20)

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
7	1.943	5.280	35.00	.0000	159.9	1321.	322.9	.2155	204.7	.8836-04	3702.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1353
7	.0000	

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
7	-30.600	.19330	228.00	.2327-01	.2796-01	.3108-01	26.08	.6070	.4030	542.3	.3593-03	.3995-03
7	-30.600	.19720	229.00	.2169-01	.2606-01	.2897-01	26.08	.5658	.4029	542.3	.3349-03	.3723-03
7	-18.000	.19330	226.00	.4210-01	.5056-01	.5621-01	26.10	1.099	.4025	541.7	.6499-03	.7225-03
7	-18.000	.19720	227.00	.3491-01	.4193-01	.4661-01	26.11	.9115	.4024	541.6	.5389-03	.5991-03
7	-7.6000	.19330	224.00	.3640-01	.4371-01	.4859-01	26.12	.9510	.4020	541.0	.5618-03	.6245-03
7	-7.6000	.19720	225.00	.2557-01	.3071-01	.3413-01	26.12	.6680	.4020	541.0	.3947-03	.4387-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 83-0, ORBITER ESCAPE HATCH

(RACH21)

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 2.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
8	1.954	5.280	20.00	.0000	160.0	1317.	321.8	.2156	204.0	.8871-04	3696.	.4000-01

RUN
NUMBER
8

PHI
DEG.
.0000

HS
SPHERE
TW=540
.1353

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
8	-30.600	.19330	228.00	.8599-01	.1038	.1157	25.39	2.183	.4163	558.3	.1330-02	.1483-02
8	-30.600	.19720	229.00	.7093-01	.8559-01	.9546-01	25.39	1.801	.4163	558.3	.1097-02	.1223-02
8	-18.000	.19330	226.00	.7499-01	.9048-01	.1009	25.41	1.906	.4158	557.7	.1159-02	.1293-02
8	-18.000	.19720	227.00	.5969-01	.7202-01	.8031-01	25.41	1.517	.4158	557.7	.9228-03	.1029-02
8	-7.6000	.19330	224.00	.7211-01	.8700-01	.9701-01	25.41	1.832	.4158	557.6	.1115-02	.1243-02
8	-7.6000	.19720	225.00	.5349-01	.6453-01	.7195-01	25.42	1.360	.4156	557.3	.8269-03	.9220-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGH22)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
10	3.901	5.280	20.00	.0000	310.3	1293.	315.7	.4188	200.1	.1756-03	3661.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
10	.0000	.1882										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
10	-30.600	.19330	228.00	.1027	.1240	.1384	34.51	3.544	.4187	551.0	.1127-02	.1258-02
10	-30.600	.19720	229.00	.8035-01	.9706-01	.1083	34.50	2.772	.4189	551.2	.8824-03	.9848-03
10	-18.000	.19330	226.00	.8414-01	.1016	.1134	34.53	2.905	.4185	550.7	.9239-03	.1031-02
10	-18.000	.19720	227.00	.6619-01	.7994-01	.8920-01	34.52	2.285	.4186	550.8	.7268-03	.8110-03
10	-7.6000	.19330	224.00	.8154-01	.9847-01	.1099	34.54	2.817	.4183	550.4	.8953-03	.9990-03
10	-7.6000	.19720	225.00	.5962-01	.7200-01	.8034-01	34.54	2.059	.4183	550.4	.6546-03	.7305-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGH22)

ESCAPE HATCH(83-0)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
11	3.887	5.280	22.50	.0000	308.4	1291.	315.2	.4163	199.8	.1749-03	3658.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
11	.0000	.1876										

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
11	-30.600	.19330	228.00	.9693-01	.1177	.1318	33.47	3.244	.4332	569.2	.1071-02	.1200-02
11	-30.600	.19720	229.00	.7560-01	.9179-01	.1028	33.47	2.530	.4333	569.2	.8356-03	.9359-03
11	-18.000	.19330	226.00	.6679-01	.8107-01	.9078-01	33.52	2.239	.4324	568.0	.7381-03	.8264-03
11	-18.000	.19720	227.00	.5244-01	.6365-01	.7127-01	33.52	1.758	.4323	567.9	.5795-03	.6488-03
11	-7.6000	.19330	224.00	.6694-01	.8124-01	.9095-01	33.57	2.247	.4316	567.0	.7396-03	.8280-03
11	-7.6000	.19720	225.00	.4852-01	.5888-01	.6592-01	33.57	1.629	.4315	566.9	.5361-03	.6001-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGH22)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

ESCAPE HATCH(83-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
12	3.913	5.280	25.00	.0000	308.0	1284.	313.5	.4158	198.7	.1756-03	3648.	.4000-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 TH=74
12	.0000	

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
12	-30.600	.19330	228.00	.8309-01	.1004	.1120	34.07	2.831	.4196	548.2	.9121-03	.1018-02
12	-30.600	.19720	229.00	.6599-01	.7973-01	.8899-01	34.07	2.248	.4198	548.4	.7244-03	.8086-03
12	-18.000	.19330	226.00	.5679-01	.6860-01	.7656-01	34.10	1.936	.4192	547.7	.6233-03	.6957-03
12	-18.000	.19720	227.00	.4522-01	.5462-01	.6096-01	34.10	1.542	.4192	547.6	.4963-03	.5539-03
12	-7.6000	.19330	224.00	.5518-01	.6664-01	.7436-01	34.14	1.884	.4185	546.8	.6055-03	.6757-03
12	-7.6000	.19720	225.00	.3978-01	.4805-01	.5361-01	34.14	1.358	.4185	546.8	.4366-03	.4872-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGH22)

ESCAPE HATCH(83-0)

OH110, MODEL 83-0, ORBITER ESCAPE HATCH

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
13	3.803	5.280	27.00	.0000	308.7	1310.	320.0	.4162	202.8	.1722-03	3686.	.4000-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .1878										
13	.0000											

TEST DATA

RUN NUMBER	YO	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
13	-30.600	.19330	228.00	.7552-01	.9118-01	.1017	34.98	2.642	.4176	557.0	.8381-03	.9350-03
13	-30.600	.19720	229.00	.6159-01	.7436-01	.8297-01	34.97	2.154	.4177	557.1	.6835-03	.7626-03
13	-18.000	.19330	226.00	.5315-01	.6416-01	.7158-01	35.01	1.861	.4172	556.3	.5898-03	.6579-03
13	-18.000	.19720	227.00	.3953-01	.4772-01	.5323-01	35.01	1.384	.4171	556.3	.4386-03	.4893-03
13	-7.6000	.19330	224.00	.4821-01	.5819-01	.6490-01	35.05	1.690	.4165	555.4	.5349-03	.5965-03
13	-7.6000	.19720	225.00	.3411-01	.4116-01	.4591-01	35.05	1.195	.4165	555.5	.3783-03	.4220-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RA0823)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
14	3.758	5.280	20.00	.0000	311.3	1326.	324.3	.4194	205.5	.1712-03	3710.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2855										
14	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
14	355.00	.20000	71.000	.3469-01	.4180-01	.4657-01	54.43	1.888	.4117	556.4	.5834-03	.6499-03
14	355.00	.22500	72.000	.2882-01	.3474-01	.3871-01	54.32	1.566	.4128	557.9	.4848-03	.5402-03
14	355.00	.25000	73.000	.2251-01	.2714-01	.3024-01	54.30	1.222	.4130	558.3	.3787-03	.4220-03
14	355.00	.27500	74.000	.1955-01	.2356-01	.2625-01	54.40	1.064	.4120	556.9	.3288-03	.3663-03
14	355.00	.30000	75.000	.3461-02	.4167-02	.4640-02	54.64	.1891	.4095	553.5	.5817-04	.6477-04
14	372.50	.32500	56.000	.1703-01	.2053-01	.2289-01	54.13	.9215	.4148	560.7	.2865-03	.3195-03
14	372.50	.35000	57.000	.1745-01	.2104-01	.2345-01	54.20	.8453	.4140	559.9	.2936-03	.3273-03
14	372.50	.37500	58.000	.3386-01	.4083-01	.4551-01	54.25	1.752	.4136	559.6	.5698-03	.6351-03
14	372.50	.40000	59.000	.3231-01	.3895-01	.4341-01	54.30	1.221	.4130	559.0	.5435-03	.6058-03
14	372.50	.42500	60.000	.4091-01	.4931-01	.5495-01	54.35	2.718	.4130	558.2	.6882-03	.7669-03
14	372.50	.45000	61.000	.5005-01	.6033-01	.6723-01	54.30	2.644	.4124	557.5	.8419-03	.9382-03
14	372.50	.47500	62.000	.4864-01	.5862-01	.6531-01	54.35	2.867	.4121	557.0	.8181-03	.9115-03
14	372.50	.50000	63.000	.5272-01	.6353-01	.7078-01	54.38	3.215	.4110	557.0	.8866-03	.9879-03
14	372.50	.52500	64.000	.5900-01	.7107-01	.7916-01	54.49	3.215	.4110	555.6	.9919-03	.1105-02
14	372.50	.55000	65.000	.5035-01	.6062-01	.6751-01	54.60	2.749	.4099	554.0	.8462-03	.9423-03
14	372.50	.57500	66.000	.3851-01	.4636-01	.5163-01	54.60	2.103	.4098	553.9	.6471-03	.7207-03
14	372.50	.60000	67.000	.1736-01	.2090-01	.2327-01	54.66	.9491	.4092	553.1	.2917-03	.3248-03
14	372.50	.65000	68.000	.1129-01	.1359-01	.1513-01	54.67	.6174	.4091	553.0	.1897-03	.2113-03
14	372.50	.70000	69.000	.8001-02	.9631-02	.1072-01	54.68	.4375	.4091	552.9	.1344-03	.1497-03
14	372.50	.75000	70.000	.6673-02	.8038-02	.8954-02	54.47	.3635	.4112	555.8	.1122-03	.1250-03
14	400.00	.20000	31.000	.2727-01	.3287-01	.3662-01	54.35	1.482	.4125	557.6	.4587-03	.5111-03
14	400.00	.22500	32.000	.2393-01	.2887-01	.3219-01	54.07	1.294	.4154	561.5	.4028-03	.4492-03

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OH110 (ARC3.54HT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RACB23)

OH110, MODEL 56-O, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
14	400.00	25000	33.000	.1791-01	.2161-01	.2410-01	53.99	.9667	.4163	562.6	.3015-03	3363-03
14	400.00	27500	34.000	.1409-01	.1701-01	.1997-01	53.97	.7605	.4165	562.9	.2373-03	2646-03
14	400.00	30000	35.000	.1320-01	.1592-01	.1776-01	54.01	.7127	.4161	562.3	.2222-03	2478-03
14	400.00	32500	36.000	.1358-01	.1638-01	.1827-01	54.02	.7334	.4160	562.2	.2286-03	2549-03
14	400.00	35000	37.000	.1739-01	.2097-01	.2339-01	54.06	.9398	.4155	561.6	.2927-03	3264-03
14	400.00	37500	38.000	.1688-01	.2036-01	.2270-01	54.07	.9124	.4154	561.5	.2841-03	3168-03
14	400.00	40000	39.000	.2763-01	.3332-01	.3715-01	54.18	1.497	.4142	559.9	.4650-03	5184-03
14	400.00	42500	40.000	.2326-01	.2806-01	.3128-01	54.13	1.259	.4148	560.6	.3915-03	4365-03
14	400.00	45000	41.000	.2644-01	.3188-01	.3554-01	54.18	1.433	.4142	559.9	.4449-03	4960-03
14	400.00	47500	42.000	.3023-01	.3645-01	.4063-01	54.20	1.638	.4141	559.7	.5086-03	5669-03
14	400.00	50000	43.000	.3500-01	.4220-01	.4704-01	54.23	1.898	.4137	559.2	.5889-03	6564-03
14	400.00	52500	44.000	.3675-01	.4430-01	.4938-01	54.27	1.995	.4133	558.7	.6183-03	6891-03
14	400.00	55000	45.000	.3962-01	.4775-01	.5322-01	54.29	2.151	.4131	558.3	.6664-03	7427-03
14	400.00	60000	46.000	.4676-01	.5636-01	.6280-01	54.34	2.541	.4126	557.6	.7865-03	8764-03
14	400.00	70000	47.000	.4785-01	.5766-01	.6424-01	54.40	2.603	.4120	556.8	.8047-03	8965-03
14	400.00	75000	48.000	.3018-01	.3636-01	.4051-01	54.42	.9346	.4118	556.6	.5075-03	5654-03
14	400.00	80000	49.000	.1719-01	.2072-01	.2309-01	54.35	.6098	.4125	557.5	.2892-03	3222-03
14	400.00	85000	50.000	.1122-01	.1352-01	.1507-01	54.35	.6098	.4125	557.5	.1887-03	2103-03
14	400.00	87500	51.000	.1162-01	.1399-01	.1558-01	54.65	.6350	.4094	553.3	.1953-03	2174-03
14	400.00	90000	52.000	.3408-01	.4103-01	.4568-01	54.69	1.864	.4086	552.3	.5543-03	6171-03
14	400.00	92500	53.000	.3299-01	.3971-01	.4421-01	54.72	1.805	.4088	552.6	.4304-03	4791-03
14	400.00	95000	54.000	.2561-01	.3083-01	.3432-01	54.70	1.401	.4079	551.3	.3576-03	3981-03
14	400.00	98500	55.000	.2129-01	.2562-01	.2852-01	54.79	.7287	.4158	562.0	.2270-03	2532-03
14	420.00	39000	18.000	.1349-01	.1627-01	.1814-01	54.04	.6887	.4154	561.5	.2144-03	2391-03
14	420.00	33700	19.000	.1274-01	.1537-01	.1713-01	54.07	.9483	.4149	560.8	.2949-03	3288-03
14	420.00	42600	20.000	.1752-01	.2113-01	.2356-01	54.12	1.457	.4145	560.3	.4528-03	5048-03
14	420.00	47800	21.000	.2691-01	.3245-01	.3617-01	54.15	1.306	.4137	559.2	.4051-03	4515-03
14	420.00	53000	22.000	.2408-01	.2903-01	.3236-01	54.23	1.534	.4126	558.5	.4754-03	5298-03
14	420.00	56700	23.000	.3419-01	.3407-01	.3797-01	54.28	1.858	.4124	557.7	.5751-03	6408-03
14	420.00	62000	24.000	.4510-01	.4121-01	.4592-01	54.34	2.451	.4119	557.4	.7585-03	8452-03
14	420.00	67000	25.000	.4464-01	.5379-01	.6056-01	54.40	2.429	.4118	556.6	.7871-03	8364-03
14	420.00	70500	26.000	.4681-01	.5640-01	.6283-01	54.42	2.225	.4124	557.4	.6884-03	7671-03
14	420.00	75000	27.000	.4093-01	.4933-01	.5496-01	54.36	1.493	.4109	555.4	.4606-03	5131-03
14	420.00	80000	28.000	.2740-01	.3300-01	.3676-01	54.50	.7164	.4076	555.9	.2195-03	2443-03
14	445.00	82400	30.000	.1307-01	.1572-01	.1750-01	54.82	.7197	.4123	557.3	.2226-03	2481-03
14	445.00	27500	1.0000	.1324-01	.1595-01	.1778-01	54.36	.6973	.4118	556.6	.2155-03	2401-03
14	445.00	30000	2.0000	.1281-01	.1544-01	.1720-01	54.41	.6202	.4107	555.1	.1912-03	2130-03
14	445.00	32500	3.0000	.1139-01	.1370-01	.1526-01	54.52	.6162	.4111	555.7	.1902-03	2118-03
14	445.00	35000	4.0000	.1131-01	.1363-01	.1518-01	54.48	.6261	.4107	555.1	.1931-03	2150-03
14	445.00	37500	5.0000	.1148-01	.1383-01	.1541-01	54.52	.6261	.4112	555.7	.2367-03	2637-03
14	445.00	40000	6.0000	.1408-01	.1696-01	.1889-01	54.48	.8341	.4107	555.1	.2572-03	2864-03
14	445.00	42500	7.0000	.1530-01	.1843-01	.2052-01	54.52					

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG923)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
14	445.00	45000	8.0000	.2023-01	.2436-01	.2714-01	54.50	1.102	.4109	555.4	.3400-03	.3787-03
14	445.00	47500	9.0000	.2406-01	.2897-01	.3227-01	54.56	1.313	.4103	554.6	.4044-03	.4504-03
14	445.00	50000	10.000	.2121-01	.2554-01	.2845-01	54.58	1.158	.4101	554.2	.3565-03	.3971-03
14	445.00	52500	11.000	.2230-01	.2686-01	.2991-01	54.56	1.217	.4103	554.6	.3748-03	.4175-03
14	445.00	55000	12.000	.2135-01	.2571-01	.2863-01	54.59	1.165	.4100	554.2	.3588-03	.3996-03
14	445.00	60000	13.000	.2464-01	.2966-01	.3303-01	54.64	1.346	.4094	553.4	.4141-03	.4610-03
14	445.00	65000	14.000	.3856-01	.4643-01	.5170-01	54.62	2.107	.4086	553.6	.6481-03	.7217-03
14	445.00	70000	15.000	.4143-01	.4986-01	.5551-01	54.69	2.266	.4089	552.7	.6960-03	.7749-03
14	445.00	75000	16.000	.3828-01	.4608-01	.5131-01	54.65	2.092	.4093	553.3	.6432-03	.7162-03
14	445.00	80000	17.000	.3403-01	.4094-01	.4558-01	54.78	1.864	.4080	551.5	.5716-03	.6362-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-0, 60-0, 83-0
OH110, MODEL 56-0, ORBITER FUSELAGEPAGE 260
(RA0823)

FUSELAGE (56-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
16	3.818	5.280	22.50	.0000	312.0	1315.	321.4	.4206	203.7	.1733-03	3694.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2856										
16	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
16	355.00	.20000	71.000	.6878-01	.8341-01	.9334-01	52.24	3.593	.4300	576.0	.1155-02	.1293-02
16	355.00	.22500	72.000	.6270-01	.7607-01	.8515-01	52.15	3.270	.4310	577.3	.1054-02	.1179-02
16	355.00	.25000	73.000	.3492-01	.4236-01	.4742-01	52.14	1.821	.4311	577.5	.5867-03	.6567-03
16	355.00	.27500	74.000	.2364-01	.2868-01	.3209-01	52.22	1.235	.4302	576.3	.3971-03	.4444-03
16	355.00	.80000	75.000	.1241-02	.1502-02	.1679-02	52.68	.6537-01	.4254	569.8	.2081-04	.2327-04
16	372.50	.30000	56.000	.2274-01	.2760-01	.3091-01	51.97	1.182	.4329	579.9	.3823-03	.4281-03
16	372.50	.32500	57.000	.2825-01	.3429-01	.3839-01	52.02	1.470	.4323	579.1	.4748-03	.5317-03
16	372.50	.35000	58.000	.3670-01	.4455-01	.4988-01	52.02	1.909	.4323	579.1	.6169-03	.6908-03
16	372.50	.37500	59.000	.4652-01	.5646-01	.6321-01	52.07	2.422	.4319	578.5	.7819-03	.8754-03
16	372.50	.40000	60.000	.6049-01	.7340-01	.8217-01	52.10	3.152	.4315	578.0	.1017-02	.1138-02
16	372.50	.42500	61.000	.6509-01	.7898-01	.8811-01	52.11	3.392	.4314	577.9	.1094-02	.1224-02
16	372.50	.45000	62.000	.5857-01	.7106-01	.7954-01	52.16	3.055	.4308	577.1	.9841-03	.1102-02
16	372.50	.47500	63.000	.4668-01	.5663-01	.6338-01	52.20	2.437	.4305	576.6	.7842-03	.8777-03
16	372.50	.50000	64.000	.3160-01	.3832-01	.4287-01	52.29	1.652	.4295	575.3	.5307-03	.5938-03
16	372.50	.52500	65.000	.2250-01	.2727-01	.3050-01	52.40	1.179	.4283	573.7	.3777-03	.4225-03
16	372.50	.55000	66.000	.1558-01	.1888-01	.2112-01	52.43	.8167	.4281	573.4	.2615-03	.2925-03
16	372.50	.60000	67.000	.9596-02	.1163-01	.1300-01	52.50	.5038	.4273	572.3	.1610-03	.1801-03
16	372.50	.65000	68.000	.7613-02	.9222-02	.1031-01	52.54	.4000	.4269	571.8	.1278-03	.1428-03
16	372.50	.70000	69.000	.4911-02	.5948-02	.6650-02	52.58	.2582	.4264	571.1	.8240-04	.9212-04
16	372.50	.75000	70.000	.3983-02	.4827-02	.5398-02	52.46	.2090	.4277	572.9	.6686-04	.7478-04
16	400.00	.20000	31.000	.5911-01	.7172-01	.8029-01	52.12	3.081	.4313	577.7	.9933-03	.1112-02
16	400.00	.22500	32.000	.5339-01	.6484-01	.7264-01	51.87	2.769	.4339	581.2	.8979-03	.1006-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
16	400.00	25000	33.000	.2931-01	.3561-01	.3990-01	51.80	1.519	.4346	582.2	.4931-03	.5524-03
16	400.00	27500	34.000	.2998-01	.3643-01	.4082-01	51.79	1.553	.4348	582.4	.5044-03	.5651-03
16	400.00	30000	35.000	.2823-01	.3429-01	.3842-01	51.81	1.463	.4345	582.1	.4748-03	.5320-03
16	400.00	32500	36.000	.2430-01	.2951-01	.3306-01	51.83	1.259	.4344	581.9	.4087-03	.4578-03
16	400.00	35000	37.000	.2440-01	.2964-01	.3320-01	51.85	1.265	.4341	581.5	.4104-03	.4597-03
16	400.00	37500	38.000	.2871-01	.3487-01	.3906-01	51.87	1.489	.4339	581.2	.4829-03	.5409-03
16	400.00	40000	39.000	.2931-01	.3558-01	.3985-01	51.96	1.523	.4330	580.0	.4927-03	.5518-03
16	400.00	42500	40.000	.3391-01	.4118-01	.4612-01	51.91	1.760	.4335	580.7	.5702-03	.6387-03
16	400.00	45000	41.000	.3789-01	.4600-01	.5151-01	51.99	1.970	.4327	579.6	.6370-03	.7133-03
16	400.00	47500	42.000	.4287-01	.5205-01	.5828-01	52.00	2.230	.4325	579.4	.7207-03	.8070-03
16	400.00	50000	43.000	.4802-01	.5829-01	.6526-01	52.04	2.499	.4321	578.8	.8072-03	.9038-03
16	400.00	52500	44.000	.5028-01	.6101-01	.6831-01	52.08	2.618	.4317	578.3	.8449-03	.9459-03
16	400.00	55000	45.000	.5350-01	.6491-01	.7267-01	52.12	2.788	.4313	577.8	.8990-03	.1006-02
16	400.00	60000	46.000	.4909-01	.5955-01	.6665-01	52.18	2.561	.4307	576.9	.8247-03	.9230-03
16	400.00	65000	47.000	.2738-01	.3320-01	.3716-01	52.26	1.431	.4299	575.8	.4599-03	.5146-03
16	400.00	70000	48.000	.1467-01	.1778-01	.1990-01	52.31	.7672	.4293	575.0	.2463-03	.2756-03
16	400.00	75000	49.000	.8792-02	.1066-01	.1193-01	52.31	.4599	.4293	575.1	.1476-03	.1652-03
16	400.00	80000	50.000	.8655-02	.1049-01	.1174-01	52.38	.4534	.4285	574.0	.1453-03	.1626-03
16	400.00	85000	51.000	.1327-01	.1606-01	.1795-01	52.75	.6998	.4247	568.8	.2225-03	.2486-03
16	400.00	87500	52.000	.3268-01	.3954-01	.4418-01	52.83	1.726	.4238	567.7	.5478-03	.6121-03
16	400.00	90000	53.000	.2470-01	.3062-01	.3420-01	52.89	1.338	.4232	566.9	.4242-03	.4739-03
16	400.00	92500	54.000	.2002-01	.2423-01	.2706-01	52.90	1.059	.4231	566.7	.3356-03	.3749-03
16	400.00	95000	55.000	.1582-01	.1913-01	.2136-01	53.01	.8386	.4219	565.1	.2650-03	.2960-03
16	420.00	18.000	18.000	.2470-01	.3001-01	.3362-01	51.83	1.280	.4344	581.9	.4155-03	.4653-03
16	420.00	19.000	19.000	.3150-01	.3874-01	.4340-01	51.85	1.654	.4342	581.5	.5365-03	.6010-03
16	420.00	20.000	20.000	.2937-01	.3567-01	.3996-01	51.87	1.524	.4339	581.2	.4939-03	.5533-03
16	420.00	21.000	21.000	.3206-01	.3894-01	.4361-01	51.92	1.655	.4335	580.6	.5392-03	.6039-03
16	420.00	22.000	22.000	.3417-01	.4148-01	.4645-01	51.98	1.776	.4327	579.6	.5744-03	.6432-03
16	420.00	23.000	23.000	.4322-01	.5246-01	.5874-01	52.05	2.250	.4321	578.8	.7265-03	.8134-03
16	420.00	24.000	24.000	.4852-01	.5888-01	.6592-01	52.10	2.528	.4315	578.0	.8154-03	.9129-03
16	420.00	25.000	25.000	.5013-01	.6081-01	.6807-01	52.16	2.615	.4308	577.1	.8422-03	.9427-03
16	420.00	26.000	26.000	.5269-01	.6390-01	.7151-01	52.24	2.753	.4300	576.0	.8850-03	.9903-03
16	420.00	27.000	27.000	.4241-01	.5143-01	.5755-01	52.28	2.217	.4296	575.5	.7123-03	.7970-03
16	420.00	28.000	28.000	.2402-01	.2913-01	.3259-01	52.29	1.256	.4295	575.3	.4034-03	.4514-03
16	420.00	29.000	29.000	.1974-01	.2207-01	.2207-01	52.47	.8547	.4276	572.8	.2734-03	.3058-03
16	420.00	30.000	30.000	.6507-02	.7873-02	.8797-02	52.83	.3438	.4238	567.7	.1091-03	.1219-03
16	445.00	27500	1.0000	.2251-01	.2732-01	.3058-01	52.10	1.173	.4315	578.0	.3783-03	.4235-03
16	445.00	30000	2.0000	.1968-01	.2388-01	.2673-01	52.13	1.026	.4311	577.5	.3307-03	.3702-03
16	445.00	32500	3.0000	.2218-01	.2690-01	.3010-01	52.22	1.158	.4302	576.2	.3726-03	.4169-03
16	445.00	35000	4.0000	.2848-01	.3455-01	.3867-01	52.18	1.486	.4307	576.9	.4785-03	.5355-03
16	445.00	37500	5.0000	.2516-01	.3051-01	.3415-01	52.21	1.314	.4303	576.4	.4226-03	.4730-03
16	445.00	40000	6.0000	.2776-01	.3367-01	.3769-01	52.17	1.448	.4307	577.0	.4663-03	.5219-03
16	445.00	42500	7.0000	.2464-01	.2989-01	.3345-01	52.21	1.287	.4304	576.5	.4140-03	.4633-03

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OH110 (ARC3.54MT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
16	445.00	.45000	8.0000	.3053-01	.3703-01	.4145-01	52.20	1.594	.4305	576.6	.5129-03	.5740-03
16	445.00	.47500	9.0000	.2831-01	.3434-01	.3843-01	52.25	1.479	.4299	575.9	.4756-03	.5322-03
16	445.00	.50000	10.000	.2905-01	.3523-01	.3942-01	52.28	1.519	.4296	575.5	.4879-03	.5459-03
16	445.00	.52500	11.000	.3150-01	.3820-01	.4274-01	52.27	1.647	.4297	575.5	.5291-03	.5920-03
16	445.00	.55000	12.000	.3278-01	.3974-01	.4446-01	52.31	1.714	.4293	575.0	.5504-03	.6158-03
16	445.00	.60000	13.000	.3713-01	.4501-01	.5035-01	52.39	1.945	.4285	574.0	.6234-03	.6973-03
16	445.00	.65000	14.000	.4155-01	.5035-01	.5632-01	52.41	2.177	.4283	573.7	.6975-03	.7802-03
16	445.00	.70000	15.000	.4016-01	.4865-01	.5440-01	52.51	2.109	.4271	572.1	.6739-03	.7536-03
16	445.00	.75000	16.000	.4227-01	.5128-01	.5740-01	52.18	2.206	.4307	576.9	.7102-03	.7949-03
16	445.00	.80000	17.000	.3757-01	.4548-01	.5083-01	52.73	1.981	.4248	569.1	.6301-03	.7042-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG823)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
18	3.664	5.280	25.00	.0000	312.9	1352.	330.9	.4209	209.7	.1684-03	3748.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
18	.0000	.2866										

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
18	355.00	.20000	71.000	.4511-01	.5421-01	.6029-01	56.45	2.546	.4043	557.7	.7644-03	.8502-03
18	355.00	.22500	72.000	.3129-01	.3763-01	.4186-01	56.31	1.762	.4057	559.6	.5305-03	.5902-03
18	355.00	.25000	73.000	.2153-01	.2589-01	.2880-01	56.27	1.211	.4061	560.1	.3650-03	.4061-03
18	355.00	.27500	74.000	.1826-01	.2196-01	.2442-01	56.35	1.029	.4054	559.1	.3096-03	.3444-03
18	355.00	.30000	75.000	.2962-02	.3554-02	.3949-02	56.89	.1685	.3998	551.4	.5013-04	.5570-04
18	372.50	.32500	56.000	.1673-01	.2014-01	.2242-01	56.00	.9369	.4089	564.0	.2839-03	.3161-03
18	372.50	.35000	57.000	.2805-01	.3375-01	.3757-01	56.09	1.573	.4080	562.7	.4758-03	.5296-03
18	372.50	.37500	58.000	.3772-01	.4539-01	.5053-01	56.07	2.115	.4082	562.9	.6399-03	.7123-03
18	372.50	.40000	59.000	.4689-01	.5640-01	.6277-01	56.17	2.634	.4072	561.6	.7952-03	.8850-03
18	372.50	.42500	60.000	.5877-01	.7069-01	.7866-01	56.20	3.303	.4068	561.1	.9966-03	.1109-02
18	372.50	.45000	61.000	.6326-01	.7608-01	.8467-01	56.21	3.555	.4068	561.0	.1073-02	.1194-02
18	372.50	.47500	62.000	.6032-01	.7253-01	.8070-01	56.29	3.396	.4059	559.9	.1023-02	.1138-02
18	372.50	.50000	63.000	.4731-01	.5688-01	.6328-01	56.34	2.666	.4054	599.1	.8020-03	.8922-03
18	372.50	.52500	64.000	.2779-01	.3340-01	.3714-01	56.45	1.569	.4043	557.6	.4709-03	.5237-03
18	372.50	.55000	65.000	.1724-01	.2071-01	.2303-01	56.59	.9760	.4028	555.6	.2921-03	.3248-03
18	372.50	.57500	66.000	.1192-01	.1432-01	.1592-01	56.63	.6753	.4024	555.0	.2020-03	.2245-03
18	372.50	.60000	67.000	.7033-02	.8443-02	.9385-02	56.72	.3989	.4015	553.8	.1191-03	.1324-03
18	372.50	.65000	68.000	.5883-02	.6702-02	.7448-02	56.77	.3169	.4011	553.1	.9452-04	.1050-03
18	372.50	.70000	69.000	.3861-02	.4634-02	.5150-02	56.80	.2193	.4008	552.7	.6536-04	.7263-04
18	372.50	.75000	70.000	.4440-02	.5332-02	.5928-02	56.63	.2514	.4025	555.1	.7520-04	.8360-04
18	400.00	.20000	31.000	.3056-01	.3674-01	.4088-01	56.28	1.720	.4060	559.9	.5181-03	.5764-03
18	400.00	.22500	32.000	.3039-01	.3659-01	.4074-01	55.93	1.700	.4096	565.0	.5158-03	.5743-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 55-0, ORBITER FUSELAGE

(RAG823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
18	400.00	25000	33.000	2249-01	2709-01	3018-01	55.81	1.255	4108	566.6	3819-03	4254-03
18	400.00	27500	34.000	1751-01	2109-01	2349-01	55.77	.9764	4112	567.1	2973-03	3311-03
18	400.00	30000	35.000	1430-01	1723-01	1919-01	55.81	.7982	4108	566.6	2428-03	2705-03
18	400.00	32500	36.000	1594-01	1920-01	2139-01	55.78	.8892	4111	567.0	2706-03	3015-03
18	400.00	35000	37.000	1964-01	2365-01	2634-01	55.88	1.098	4101	565.6	3334-03	3713-03
18	400.00	37500	38.000	2650-01	3191-01	3553-01	55.86	1.480	4103	565.9	4498-03	5009-03
18	400.00	40000	39.000	2543-01	3061-01	3409-01	55.95	1.423	4094	564.6	4315-03	4805-03
18	400.00	42500	40.000	3458-01	4163-01	4635-01	55.97	1.935	4092	564.4	5868-03	6534-03
18	400.00	45000	41.000	3629-01	4367-01	4861-01	56.04	2.034	4085	563.3	6156-03	6853-03
18	400.00	47500	42.000	4305-01	5181-01	5767-01	56.06	2.414	4083	563.1	7304-03	8130-03
18	400.00	50000	43.000	4315-01	5196-01	5787-01	55.87	2.411	4103	565.8	7324-03	8157-03
18	400.00	52500	44.000	5036-01	6058-01	6742-01	56.17	2.829	4072	561.5	8541-03	9505-03
18	400.00	55000	45.000	6032-01	7255-01	8073-01	56.22	3.391	4067	560.9	1023-02	1138-02
18	400.00	60000	46.000	4405-01	5296-01	5893-01	56.29	2.480	4059	559.8	7468-03	8309-03
18	400.00	70000	47.000	2034-01	2445-01	2720-01	56.38	1.147	4050	558.6	3448-03	3835-03
18	400.00	80000	48.000	1080-01	1297-01	1443-01	56.43	.6092	4045	557.8	1829-03	2035-03
18	400.00	90000	49.000	8788-02	1056-01	1175-01	56.45	.4960	4044	557.7	1489-03	1656-03
18	400.00	10000	50.000	1041-01	1250-01	1390-01	56.52	.5881	4036	556.7	1763-03	1960-03
18	400.00	85000	51.000	2159-01	2590-01	2877-01	56.96	1.230	3991	550.5	3653-03	4058-03
18	400.00	95000	52.000	1743-01	2090-01	2321-01	57.05	.9941	3982	549.2	2948-03	3274-03
18	400.00	10000	53.000	1231-01	1476-01	1636-01	57.12	.7017	3978	548.6	2082-03	2312-03
18	400.00	92500	54.000	1228-01	1473-01	1636-01	57.12	.7017	3975	548.2	2078-03	2307-03
18	400.00	95000	55.000	1029-01	1233-01	1369-01	57.21	.5884	3966	546.9	1739-03	1931-03
18	400.00	10000	56.000	1711-01	2061-01	2296-01	55.83	.9555	4106	566.3	2905-03	3236-03
18	400.00	33700	19.000	1585-01	1909-01	2126-01	55.85	.8852	4104	566.0	2690-03	2996-03
18	400.00	39000	20.000	2564-01	3087-01	3437-01	55.91	1.433	4098	565.2	4351-03	4846-03
18	400.00	42600	21.000	2513-01	3025-01	3368-01	55.96	1.406	4093	564.5	4264-03	4748-03
18	400.00	47800	22.000	3834-01	4613-01	5135-01	56.06	2.149	4083	563.1	6503-03	7240-03
18	400.00	53000	23.000	4356-01	5241-01	5833-01	56.14	2.446	4075	562.0	7389-03	8224-03
18	400.00	56700	24.000	4040-01	4860-01	5408-01	56.20	2.271	4068	561.1	6851-03	7624-03
18	400.00	62000	25.000	5842-01	7024-01	7815-01	56.30	3.283	4059	559.8	9904-03	1102-02
18	400.00	67000	26.000	5130-01	6167-01	6859-01	56.38	2.893	4050	558.5	8695-03	9672-03
18	400.00	75000	27.000	3424-01	4115-01	4577-01	56.43	1.932	4045	557.9	5803-03	6454-03
18	400.00	80000	28.000	1941-01	2333-01	2595-01	56.41	1.095	4047	558.1	3290-03	3659-03
18	400.00	82400	29.000	1859-01	2233-01	2482-01	56.66	1.053	4022	554.6	3149-03	3500-03
18	400.00	84500	30.000	1163-01	1395-01	1549-01	57.08	.6640	3978	548.7	1968-03	2185-03
18	400.00	87500	31.000	1571-01	1890-01	2104-01	56.18	.8828	4071	561.4	2655-03	2966-03
18	400.00	90000	32.000	1459-01	1754-01	1952-01	56.22	.8200	4067	560.9	2473-03	2752-03
18	400.00	92500	33.000	1294-01	1555-01	1730-01	56.33	.7288	4055	559.3	2193-03	2440-03
18	400.00	95000	34.000	1377-01	1655-01	1842-01	56.28	.7748	4061	560.0	2334-03	2597-03
18	400.00	97500	35.000	1615-01	1941-01	2159-01	56.33	.9094	4056	559.4	2737-03	3045-03
18	400.00	10000	36.000	2239-01	2692-01	2995-01	56.28	1.260	4060	560.0	3796-03	4223-03
18	400.00	102500	37.000	2014-01	2422-01	2694-01	56.32	1.135	4056	559.4	3415-03	3799-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB23)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
18	445.00	.45000	9.0000	.2152-01	.2587-01	.2878-01	56.32	1.212	.4056	559.5	.3648-03	.4058-03
18	445.00	.47500	9.0000	.2374-01	.2854-01	.3175-01	56.38	1.339	.4050	558.6	.4024-03	.4477-03
18	445.00	.50000	10.000	.2938-01	.3531-01	.3928-01	56.42	1.658	.4046	558.1	.4979-03	.5538-03
18	445.00	.52500	11.000	.3728-01	.4481-01	.4984-01	56.47	2.104	.4046	558.0	.6319-03	.7028-03
18	445.00	.55000	12.000	.3714-01	.4463-01	.4964-01	56.47	2.097	.4041	557.4	.6294-03	.6999-03
18	445.00	.60000	13.000	.3120-01	.3748-01	.4167-01	56.56	1.765	.4032	556.0	.5285-03	.5876-03
18	445.00	.65000	14.000	.3420-01	.4108-01	.4568-01	56.58	1.935	.4029	555.7	.5793-03	.6441-03
18	445.00	.70000	15.000	.4265-01	.5121-01	.5692-01	56.71	2.419	.4017	554.0	.7222-03	.8028-03
18	445.00	.75000	16.000	.4393-01	.5280-01	.5874-01	56.37	2.476	.4051	558.7	.7445-03	.8282-03
18	445.00	.80000	17.000	.3595-01	.4312-01	.4790-01	56.97	2.048	.3990	550.3	.6083-03	.6757-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGB23)

FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
20	3.755	5.280	27.50	.0000	310.8	1326.	324.1	.4187	205.4	.1710-03	3709.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2852										
20	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
20	355.00	.20000	71.000	.4432-01	.5357-01	.5981-01	53.49	2.371	.4207	568.3	.7477-03	.8348-03
20	355.00	.22500	72.000	.5250-01	.6349-01	.7089-01	53.38	2.802	.4219	569.9	.8859-03	.9894-03
20	355.00	.25000	73.000	.3280-01	.3967-01	.4430-01	53.36	1.751	.4220	570.1	.5536-03	.6183-03
20	355.00	.27500	74.000	.2448-01	.2959-01	.3304-01	53.45	1.308	.4212	569.0	.4130-03	.4611-03
20	355.00	.30000	75.000	.6000-02	.7241-02	.8075-02	53.92	.3236	.4161	562.2	.1011-03	.1127-03
20	372.50	.30000	56.000	.2499-01	.3024-01	.3379-01	53.16	1.328	.4241	573.0	.4220-03	.4715-03
20	372.50	.32500	57.000	.3861-01	.4671-01	.5218-01	53.22	2.055	.4235	572.1	.6518-03	.7282-03
20	372.50	.35000	58.000	.5036-01	.6093-01	.6807-01	53.24	2.681	.4234	571.9	.8502-03	.9499-03
20	372.50	.37500	59.000	.6751-01	.8166-01	.9122-01	53.28	3.597	.4239	571.2	.1140-02	.1273-02
20	372.50	.40000	60.000	.7571-01	.9156-01	.1023	53.33	4.038	.4224	570.6	.1278-02	.1427-02
20	372.50	.42500	61.000	.6603-01	.7985-01	.8918-01	53.34	3.522	.4222	570.4	.1114-02	.1245-02
20	372.50	.45000	62.000	.4385-01	.5302-01	.5921-01	53.40	2.342	.4216	569.5	.7399-03	.8263-03
20	372.50	.47500	63.000	.2597-01	.3139-01	.3505-01	53.44	1.388	.4212	569.0	.4381-03	.4892-03
20	372.50	.50000	64.000	.1376-01	.1662-01	.1856-01	53.54	.7365	.4202	567.7	.2320-03	.2590-03
20	372.50	.52500	65.000	.1024-01	.1237-01	.1380-01	53.65	.5493	.4190	566.0	.1726-03	.1927-03
20	372.50	.55000	66.000	.7651-02	.9240-02	.1031-01	53.67	.4106	.4188	565.8	.1290-03	.1439-03
20	372.50	.60000	67.000	.5651-02	.6823-02	.7613-02	53.75	.3037	.4180	564.7	.9524-04	.1063-03
20	372.50	.65000	68.000	.3923-02	.4736-02	.5284-02	53.78	.2110	.4176	564.2	.6612-04	.7376-04
20	372.50	.70000	69.000	.3056-02	.3690-02	.4116-02	53.82	.1645	.4173	563.7	.5151-04	.5746-04
20	372.50	.75000	70.000	.5556-02	.6710-02	.7488-02	53.69	.2983	.4186	565.5	.9367-04	.1045-03
20	400.00	.20000	31.000	.3508-01	.4242-01	.4738-01	53.34	1.871	.4222	570.4	.5920-03	.6612-03
20	400.00	.22500	32.000	.2686-01	.3251-01	.3634-01	53.07	1.425	.4251	574.3	.4536-03	.5070-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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(RAG823)

OH110, MODEL 56-O, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
20	400.00	.25000	33.000	.2351-01	.2847-01	.3182-01	52.98	1.245	.4261	575.6	.3972-03	.4440-03
20	400.00	.27500	34.000	.3433-01	.4158-01	.4648-01	52.95	1.818	.4263	575.9	.5801-03	.6486-03
20	400.00	.30000	35.000	.2874-01	.3480-01	.3891-01	52.99	1.523	.4260	575.5	.4856-03	.5428-03
20	400.00	.32500	36.000	.3210-01	.3887-01	.4345-01	53.00	1.701	.4258	575.3	.5423-03	.6063-03
20	400.00	.35000	37.000	.3645-01	.4415-01	.4936-01	52.96	1.931	.4262	575.8	.6160-03	.6887-03
20	400.00	.37500	38.000	.3397-01	.4113-01	.4597-01	53.04	1.802	.4254	574.6	.5739-03	.6414-03
20	400.00	.40000	39.000	.3505-01	.4242-01	.4739-01	53.17	1.864	.4241	572.9	.5919-03	.6614-03
20	400.00	.42500	40.000	.4374-01	.5293-01	.5915-01	53.13	2.324	.4245	573.4	.7386-03	.8254-03
20	400.00	.45000	41.000	.4471-01	.5409-01	.6044-01	53.20	2.378	.4237	572.4	.7548-03	.8434-03
20	400.00	.47500	42.000	.4904-01	.5934-01	.6629-01	53.22	2.610	.4235	572.1	.8280-03	.9251-03
20	400.00	.50000	43.000	.6216-01	.7529-01	.8419-01	52.92	3.289	.4267	576.4	.1050-02	.1175-02
20	400.00	.52500	44.000	.6911-01	.8358-01	.9336-01	53.31	3.684	.4226	570.9	.1166-02	.1303-02
20	400.00	.55000	45.000	.5761-01	.6967-01	.7782-01	53.34	3.073	.4222	570.4	.9723-03	.1086-02
20	400.00	.60000	46.000	.2752-01	.3328-01	.3716-01	53.40	1.470	.4217	569.6	.4644-03	.5186-03
20	400.00	.65000	47.000	.1311-01	.1584-01	.1769-01	53.48	.7009	.4208	568.5	.2211-03	.2468-03
20	400.00	.70000	48.000	.7915-02	.9565-02	.1068-01	53.53	.4237	.4203	567.7	.1335-03	.1490-03
20	400.00	.75000	49.000	.1101-01	.1331-01	.1486-01	53.53	.5896	.4194	567.8	.1858-03	.2074-03
20	400.00	.80000	50.000	.1168-01	.1409-01	.1572-01	53.61	.6251	.4194	566.6	.1966-03	.2194-03
20	400.00	.85000	51.000	.9286-02	.1120-01	.1249-01	54.00	.5014	.4154	561.2	.1564-03	.1744-03
20	400.00	.87500	52.000	.8447-02	.1019-01	.1136-01	54.08	.4568	.4145	560.0	.1422-03	.1586-03
20	400.00	.90000	53.000	.9067-02	.1093-01	.1219-01	54.14	.4909	.4139	559.1	.1526-03	.1701-03
20	400.00	.92500	54.000	.1021-01	.1231-01	.1372-01	54.16	.5529	.4137	558.9	.1719-03	.1916-03
20	400.00	.95000	55.000	.1043-01	.1259-01	.1405-01	53.64	.5592	.4191	558.2	.1758-03	.1962-03
20	420.00	.98500	18.000	.2731-01	.3306-01	.3696-01	53.00	1.447	.4258	575.2	.4613-03	.5157-03
20	420.00	.33700	19.000	.3382-01	.4095-01	.4577-01	53.02	1.793	.4256	575.0	.5714-03	.6387-03
20	420.00	.39000	20.000	.3349-01	.4055-01	.4532-01	53.07	1.778	.4251	574.2	.5658-03	.6323-03
20	420.00	.42600	21.000	.3532-01	.4275-01	.4777-01	53.13	1.876	.4245	573.5	.5985-03	.6666-03
20	420.00	.47800	22.000	.4219-01	.5104-01	.5703-01	53.21	2.245	.4236	572.3	.7123-03	.7958-03
20	420.00	.53000	23.000	.4255-01	.5147-01	.5750-01	53.28	2.267	.4229	571.3	.7183-03	.8024-03
20	420.00	.56700	24.000	.5718-01	.6920-01	.7733-01	53.14	3.038	.4244	573.3	.9656-03	.1079-02
20	420.00	.62000	25.000	.6522-01	.7885-01	.8806-01	53.41	3.483	.4216	569.5	.1100-02	.1229-02
20	420.00	.67000	26.000	.4016-01	.4854-01	.5420-01	53.48	2.148	.4208	568.5	.6775-03	.7564-03
20	420.00	.70500	27.000	.2475-01	.2991-01	.3339-01	53.52	1.325	.4204	567.9	.4174-03	.4660-03
20	420.00	.75000	28.000	.1981-01	.2394-01	.2673-01	53.53	1.060	.4203	567.8	.3341-03	.3730-03
20	420.00	.80000	29.000	.1720-01	.2077-01	.2318-01	53.72	.9242	.4183	565.0	.2900-03	.3236-03
20	420.00	.84400	30.000	.5646-02	.6809-02	.7590-02	54.10	.3055	.4143	559.7	.9507-04	.1060-03
20	445.00	.27500	1.0000	.1450-01	.1754-01	.1959-01	53.29	.7728	.4228	571.2	.2448-03	.2734-03
20	445.00	.30000	2.0000	.1997-01	.2415-01	.2697-01	53.33	1.065	.4224	570.6	.3370-03	.3764-03
20	445.00	.32500	3.0000	.2691-01	.3253-01	.3633-01	53.43	1.438	.4213	569.2	.4541-03	.5070-03
20	445.00	.35000	4.0000	.2986-01	.3611-01	.4033-01	53.39	1.594	.4218	569.8	.5040-03	.5628-03
20	445.00	.37500	5.0000	.3163-01	.3823-01	.4269-01	53.43	1.690	.4213	569.1	.5336-03	.5958-03
20	445.00	.40000	6.0000	.3387-01	.4095-01	.4573-01	53.40	1.808	.4217	569.7	.5715-03	.6382-03
20	445.00	.42500	7.0000	.2674-01	.3233-01	.3610-01	53.44	1.429	.4212	569.0	.4512-03	.5038-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB23)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
20	445.00	45000	8.0000	.3024-01	.3656-01	.4082-01	53.44	1.616	.4213	569.1	.5102-03	.5697-03
20	445.00	47500	9.0000	.3302-01	.3991-01	.4456-01	53.49	1.766	.4207	568.3	.5570-03	.6219-03
20	445.00	50000	10.0000	.3473-01	.4197-01	.4686-01	53.53	1.859	.4203	567.8	.5858-03	.6540-03
20	445.00	52500	11.0000	.3621-01	.4255-01	.4750-01	53.53	1.885	.4203	567.7	.5938-03	.6629-03
20	445.00	55000	12.0000	.3156-01	.3814-01	.4257-01	53.57	1.691	.4199	567.2	.5323-03	.5942-03
20	445.00	60000	13.0000	.3027-01	.3656-01	.4080-01	53.65	1.624	.4191	566.1	.5103-03	.5696-03
20	445.00	65000	14.0000	.4475-01	.5405-01	.6032-01	53.66	2.401	.4190	566.0	.7544-03	.8419-03
20	445.00	70000	15.0000	.4825-01	.5825-01	.6499-01	53.76	2.594	.4178	564.4	.8132-03	.9073-03
20	445.00	75000	16.0000	.4484-01	.5421-01	.6053-01	53.41	2.395	.4215	569.4	.7566-03	.8448-03
20	445.00	80000	17.0000	.2803-01	.3362-01	.3771-01	53.99	1.513	.4155	561.3	.4721-03	.5264-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSÉLAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB23)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
28	3.769	5.280	30.00	.0000	307.7	1314.	321.2	.4147	203.6	.1710-03	3692.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
28	.0000	.2836										

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
28	355.00	.20000	71.000	.7104-01	.8609-01	.9629-01	52.03	3.696	.4280	573.0	.1200-02	.1343-02
28	355.00	.22500	72.000	.4198-01	.5091-01	.5696-01	51.89	2.179	.4295	574.9	.7097-03	.7941-03
28	355.00	.25000	73.000	.2447-01	.2967-01	.3320-01	51.85	1.269	.4299	575.5	.4137-03	.4629-03
28	355.00	.27500	74.000	.2180-01	.2643-01	.2957-01	51.94	1.132	.4290	574.2	.3685-03	.4123-03
28	355.00	.30000	75.000	.4508-02	.5454-02	.6094-02	52.43	.2363	.4238	567.2	.7607-04	.8499-04
28	372.50	.32500	56.000	.2417-01	.2934-01	.3286-01	51.58	1.247	.4328	579.4	.4090-03	.4580-03
28	372.50	.35000	57.000	.5472-01	.6542-01	.7437-01	51.64	2.826	.4322	578.5	.9259-03	.1037-02
28	372.50	.37500	58.000	.6473-01	.7855-01	.8794-01	51.70	3.347	.4315	577.3	.9736-03	.1030-02
28	372.50	.40000	59.000	.5198-01	.6305-01	.7057-01	51.78	3.579	.4308	576.7	.1169-02	.1226-02
28	372.50	.42500	60.000	.6915-01	.8388-01	.9389-01	51.76	2.692	.4306	575.4	.8790-03	.9838-03
28	372.50	.45000	61.000	.5198-01	.6305-01	.7057-01	51.85	1.500	.4299	576.4	.4891-03	.5473-03
28	372.50	.47500	62.000	.2893-01	.3508-01	.3926-01	51.85	.8255	.4294	574.8	.2777-03	.3107-03
28	372.50	.50000	63.000	.1643-01	.1992-01	.2228-01	51.90	.4976	.4281	573.0	.1616-03	.1808-03
28	372.50	.52500	64.000	.9566-02	.1159-01	.1297-01	52.02	.3773	.4267	573.1	.1222-03	.1366-03
28	372.50	.55000	65.000	.7235-02	.8764-02	.9799-02	52.15	.2884	.4262	570.5	.9331-04	.1043-03
28	372.50	.60000	66.000	.5525-02	.6691-02	.7481-02	52.20	.2089	.4251	569.0	.6741-04	.7535-04
28	372.50	.65000	67.000	.3993-02	.4834-02	.5403-02	52.30	.1397	.4246	568.3	.4505-04	.5035-04
28	372.50	.70000	68.000	.2669-02	.3230-02	.3610-02	52.35	.1738	.4244	568.1	.5601-04	.6259-04
28	372.50	.75000	69.000	.3319-02	.4017-02	.4488-02	52.37	.3573	.4265	570.9	.1157-03	.1293-03
28	372.50	.80000	70.000	.6849-02	.8295-02	.9274-02	52.17	3.225	.4300	575.6	.1052-02	.1177-02
28	400.00	.20000	31.000	.6221-01	.7545-01	.8443-01	51.84	2.920	.4338	580.7	.9600-03	.1075-02
28	400.00	.22500	32.000	.5671-01	.6887-01	.7714-01	51.49					

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OH110 (ARC3.5HAT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
28	400.00	.25000	33.000	.4157-01	.5051-01	.5660-01	51.34	2.134	.4353	582.7	.7040-03	.7889-03
28	400.00	.27500	34.000	.3860-01	.4692-01	.5259-01	51.28	1.980	.4359	583.5	.6540-03	.7329-03
28	400.00	.30000	35.000	.2213-01	.2690-01	.3015-01	51.31	1.136	.4357	583.2	.3749-03	.4202-03
28	400.00	.32500	36.000	.2554-01	.3104-01	.3478-01	51.33	1.311	.4354	582.9	.4326-03	.4848-03
28	400.00	.35000	37.000	.4079-01	.4956-01	.5553-01	51.38	2.096	.4349	582.2	.6908-03	.7740-03
28	400.00	.37500	38.000	.4320-01	.5249-01	.5881-01	51.38	2.220	.4349	582.1	.7316-03	.8197-03
28	400.00	.40000	39.000	.4516-01	.5483-01	.6141-01	51.52	2.327	.4334	580.1	.7643-03	.8560-03
28	400.00	.42500	40.000	.4825-01	.5860-01	.6564-01	51.47	2.483	.4339	580.9	.8168-03	.9150-03
28	400.00	.45000	41.000	.5190-01	.6301-01	.7056-01	51.56	2.676	.4330	579.6	.8783-03	.9836-03
28	400.00	.47500	42.000	.6992-01	.8488-01	.9505-01	51.58	3.606	.4328	579.3	.1183-02	.1325-02
28	400.00	.50000	43.000	.7970-01	.9673-01	.1083	51.64	4.116	.4321	578.4	.1348-02	.1510-02
28	400.00	.52500	44.000	.5949-01	.7218-01	.8080-01	51.71	3.076	.4314	577.4	.1006-02	.1126-02
28	400.00	.55000	45.000	.4429-01	.5373-01	.6013-01	51.76	2.292	.4308	576.7	.7490-03	.8383-03
28	400.00	.60000	46.000	.2100-01	.2546-01	.2849-01	51.86	1.089	.4298	575.3	.3550-03	.3972-03
28	400.00	.65000	47.000	.8716-02	.1057-01	.1182-01	51.94	.4527	.4289	574.2	.1473-03	.1648-03
28	400.00	.70000	48.000	.8745-02	.1060-01	.1186-01	52.00	.4548	.4283	573.3	.1478-03	.1653-03
28	400.00	.75000	49.000	.9068-02	.1099-01	.1230-01	51.95	.4711	.4288	573.0	.1533-03	.1715-03
28	400.00	.80000	50.000	.8671-02	.1051-01	.1175-01	52.03	.4512	.4279	572.8	.1465-03	.1639-03
28	400.00	.85000	51.000	.6951-02	.8408-02	.9392-02	52.51	.3650	.4229	566.1	.1173-03	.1310-03
28	400.00	.87500	52.000	.6348-02	.7675-02	.8572-02	52.61	.3340	.4218	564.6	.1071-03	.1196-03
28	400.00	.90000	53.000	.6697-02	.8095-02	.9039-02	52.68	.3528	.4211	563.6	.1129-03	.1261-03
28	400.00	.92500	54.000	.9094-02	.1093-01	.1227-01	52.68	.4791	.4211	563.6	.1533-03	.1712-03
28	400.00	.95000	55.000	.8680-02	.1049-01	.1171-01	52.77	.4581	.4201	562.3	.1463-03	.1633-03
28	420.00	.28500	18.000	.3769-01	.4579-01	.5131-01	51.35	1.935	.4353	582.6	.6383-03	.7152-03
28	420.00	.33700	19.000	.3004-01	.3650-01	.4089-01	51.38	1.543	.4349	582.1	.5087-03	.5700-03
28	420.00	.39000	20.000	.4359-01	.5295-01	.5932-01	51.44	2.243	.4342	581.3	.7381-03	.8268-03
28	420.00	.42600	21.000	.4413-01	.5359-01	.6003-01	51.49	2.272	.4338	580.6	.7470-03	.8367-03
28	420.00	.47800	22.000	.4028-01	.4890-01	.5475-01	51.59	2.078	.4327	579.2	.6816-03	.7632-03
28	420.00	.53000	23.000	.5586-01	.6778-01	.7588-01	51.69	2.887	.4317	577.8	.9449-03	.1058-02
28	420.00	.56700	24.000	.7293-01	.8847-01	.9802-01	51.77	3.776	.4307	576.6	.1233-02	.1381-02
28	420.00	.62000	25.000	.5891-01	.7163-01	.8031-01	51.18	3.015	.4371	585.1	.9983-03	.1119-02
28	420.00	.67000	26.000	.3152-01	.3821-01	.4275-01	51.94	1.637	.4289	574.1	.5327-03	.5960-03
28	420.00	.70500	27.000	.2041-01	.2474-01	.2767-01	51.99	1.061	.4284	573.5	.3449-03	.3858-03
28	420.00	.75000	28.000	.1411-01	.1711-01	.1914-01	51.97	.7335	.4286	573.8	.2385-03	.2669-03
28	420.00	.80000	29.000	.1146-01	.1388-01	.1552-01	52.20	.5984	.4262	570.5	.1936-03	.2164-03
28	420.00	.82400	30.000	.5077-02	.6138-02	.6855-02	52.62	.2671	.4218	564.5	.8562-04	.9562-04
28	445.00	.27500	1.0000	.2490-01	.3022-01	.3383-01	51.71	1.288	.4314	577.5	.4213-03	.4716-03
28	445.00	.30000	2.0000	.2927-01	.3551-01	.3974-01	51.76	1.515	.4308	576.7	.4950-03	.5540-03
28	445.00	.32500	3.0000	.2805-01	.3402-01	.3807-01	51.87	1.455	.4297	575.1	.4743-03	.5307-03
28	445.00	.35000	4.0000	.2641-01	.3203-01	.3584-01	51.83	1.369	.4301	575.8	.4465-03	.4997-03
28	445.00	.37500	5.0000	.3115-01	.3777-01	.4226-01	51.88	1.616	.4296	575.1	.5265-03	.5892-03
28	445.00	.40000	6.0000	.3428-01	.4157-01	.4652-01	51.84	1.777	.4300	575.6	.5796-03	.6486-03
28	445.00	.42500	7.0000	.3316-01	.4021-01	.4499-01	51.89	1.721	.4295	574.9	.5606-03	.6272-03

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
28	445.00	45000	8.0000	.3637-01	.4410-01	.4935-01	51.89	1.887	.4295	574.9	.6149-03	.6880-03
28	445.00	47500	9.0000	.3355-01	.4067-01	.4550-01	51.95	1.743	.4288	574.0	.5670-03	.6343-03
28	445.00	50000	10.000	.3189-01	.3865-01	.4324-01	52.00	1.658	.4283	573.3	.5389-03	.6028-03
28	445.00	52500	11.000	.3289-01	.3986-01	.4459-01	52.01	1.711	.4281	573.1	.5558-03	.6217-03
28	445.00	55000	12.000	.3356-01	.4066-01	.4548-01	52.05	1.747	.4277	572.6	.5670-03	.6341-03
28	445.00	60000	13.000	.3645-01	.4415-01	.4936-01	52.15	1.901	.4267	571.2	.6156-03	.6883-03
28	445.00	65000	14.000	.4863-01	.5891-01	.6586-01	52.17	2.537	.4265	570.9	.8214-03	.9184-03
28	445.00	70000	15.000	.5606-01	.6787-01	.7586-01	52.28	2.931	.4253	569.3	.9465-03	.1058-02
28	445.00	75000	16.000	.3751-01	.4541-01	.5076-01	52.30	1.962	.4251	569.1	.6333-03	.7079-03
28	445.00	80000	17.000	.1488-01	.1800-01	.2010-01	52.51	.7812	.4229	566.1	.2510-03	.2804-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
24	3.776	5.280	32.50	.0000	308.8	1316.	321.6	.4162	203.8	.1714-03	3695.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TN=540 2841
24	.0000	

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
24	355.00	.20000	71.000	.9505-01	.1149	.1283	52.79	5.019	.4216	565.0	.1601-02	.1788-02
24	355.00	.22500	72.000	.3982-01	.4816-01	.5379-01	52.69	2.098	.4226	566.4	.6710-03	.7495-03
24	355.00	.25000	73.000	.2404-01	.2908-01	.3248-01	52.69	1.267	.4226	566.4	.4051-03	.4535-03
24	355.00	.27500	74.000	.2340-01	.2830-01	.3160-01	52.77	1.235	.4218	565.2	.3942-03	.4403-03
24	355.00	.30000	75.000	.2563-02	.3093-02	.3449-02	53.28	1.366	.4163	558.0	.4310-04	.4807-04
24	372.50	.30000	56.000	.2949-01	.3570-01	.3990-01	52.47	1.548	.4249	569.5	.4973-03	.5558-03
24	372.50	.32500	57.000	.5384-01	.6515-01	.7280-01	52.54	2.829	.4242	568.5	.9076-03	.1014-02
24	372.50	.35000	58.000	.5147-01	.6228-01	.6959-01	52.55	2.705	.4241	568.3	.8677-03	.9695-03
24	372.50	.37500	59.000	.4895-01	.5923-01	.6617-01	52.61	2.575	.4235	567.6	.8252-03	.9219-03
24	372.50	.40000	60.000	.5538-01	.6699-01	.7484-01	52.65	2.916	.4230	566.9	.9333-03	.1043-02
24	372.50	.42500	61.000	.3878-01	.4691-01	.5240-01	52.67	2.042	.4229	566.7	.6535-03	.7300-03
24	372.50	.45000	62.000	.2130-01	.2575-01	.2876-01	52.74	1.123	.4222	565.8	.3588-03	.4007-03
24	372.50	.47500	63.000	.1198-01	.1448-01	.1617-01	52.79	.6323	.4216	565.0	.2018-03	.2253-03
24	372.50	.50000	64.000	.6818-02	.8241-02	.9200-02	52.88	.3606	.4206	563.7	.1148-03	.1282-03
24	372.50	.52500	65.000	.5149-02	.6220-02	.6942-02	53.02	.2730	.4192	561.8	.8667-04	.9673-04
24	372.50	.55000	66.000	.4033-02	.4943-02	.5516-02	53.05	.2171	.4188	561.3	.6889-04	.7687-04
24	372.50	.60000	67.000	.2726-02	.3292-02	.3672-02	53.15	.1449	.4177	559.8	.4587-04	.5118-04
24	372.50	.65000	68.000	.2312-02	.2791-02	.3114-02	53.20	.1230	.4173	559.2	.3890-04	.4340-04
24	372.50	.70000	69.000	.4314-02	.5207-02	.5808-02	53.24	.2297	.4168	558.6	.7256-04	.8094-04
24	372.50	.75000	70.000	.4498-02	.5432-02	.6061-02	53.10	.2388	.4163	560.6	.7569-04	.8446-04
24	400.00	.20000	31.000	.6448-01	.7801-01	.8716-01	52.62	3.393	.4234	567.5	.1087-02	.1214-02
24	400.00	.22500	32.000	.6202-01	.7512-01	.8398-01	52.34	3.246	.4263	571.4	.1046-02	.1170-02

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
24	400.00	.25000	33.000	.4427-01	.5364-01	.5998-01	52.26	2.314	.4273	572.6	.7471-03	.8355-03
24	400.00	.27500	34.000	.3381-01	.4096-01	.4581-01	52.23	1.766	.4275	572.9	.5706-03	.6381-03
24	400.00	.30000	35.000	.2448-01	.2965-01	.3316-01	52.27	1.279	.4271	572.4	.4130-03	.4618-03
24	400.00	.32500	36.000	.3455-01	.4186-01	.4680-01	52.29	1.807	.4289	572.1	.5830-03	.6519-03
24	400.00	.35000	37.000	.4769-01	.5776-01	.6457-01	52.37	2.498	.4260	570.9	.8045-03	.8994-03
24	400.00	.37500	38.000	.4547-01	.5507-01	.6157-01	52.35	2.381	.4262	571.2	.7671-03	.8576-03
24	400.00	.40000	39.000	.4722-01	.5715-01	.6387-01	52.49	2.478	.4248	569.3	.7962-03	.8998-03
24	400.00	.42500	40.000	.4892-01	.5922-01	.6619-01	52.44	2.565	.4253	570.0	.8250-03	.9221-03
24	400.00	.45000	41.000	.6701-01	.8111-01	.9063-01	52.52	3.519	.4245	568.9	.1130-02	.1263-02
24	400.00	.47500	42.000	.7796-01	.9434-01	.1054	52.55	4.097	.4241	568.4	.1314-02	.1469-02
24	400.00	.50000	43.000	.7661-01	.9269-01	.1036	52.60	4.030	.4236	567.7	.1291-02	.1443-02
24	400.00	.52500	44.000	.4839-01	.5853-01	.6638-01	52.67	2.549	.4239	566.7	.8155-03	.9109-03
24	400.00	.55000	45.000	.3465-01	.4190-01	.4680-01	52.72	1.827	.4233	566.0	.5838-03	.6520-03
24	400.00	.60000	46.000	.1469-01	.1778-01	.1987-01	52.91	.7714	.4246	569.0	.2477-03	.2768-03
24	400.00	.65000	47.000	.8050-02	.9728-02	.1086-01	52.91	4.259	.4203	563.3	.1356-03	.1513-03
24	400.00	.70000	48.000	.7384-02	.8922-02	.9558-02	52.97	.3911	.4197	562.5	.1243-03	.1388-03
24	400.00	.75000	49.000	.7242-02	.8751-02	.9768-02	52.95	.3835	.4199	562.7	.1219-03	.1361-03
24	400.00	.80000	50.000	.6917-02	.8356-02	.9326-02	53.01	.3667	.4193	561.9	.1164-03	.1300-03
24	400.00	.85000	51.000	.3508-02	.4233-02	.4720-02	53.36	.1872	.4156	556.9	.5899-04	.6578-04
24	400.00	.90000	52.000	.2410-02	.2919-02	.3241-02	53.43	.1288	.4148	556.0	.4052-04	.4518-04
24	400.00	.92500	53.000	.1840-02	.2219-02	.2773-02	53.48	.1271	.4143	555.2	.3093-04	.3448-04
24	400.00	.95000	54.000	.2377-02	.2867-02	.3196-02	53.48	.1382	.4132	553.8	.3996-04	.4454-04
24	400.00	.98000	55.000	.2580-02	.3110-02	.3466-02	53.58	1.927	.4270	572.3	.4335-04	.4831-04
24	420.00	.28500	18.000	.3686-01	.4465-01	.4993-01	52.28	1.727	.4268	572.0	.6219-03	.6954-03
24	420.00	.33700	19.000	.3303-01	.4001-01	.4473-01	52.30	2.392	.4261	571.0	.5573-03	.6231-03
24	420.00	.39000	20.000	.4567-01	.5530-01	.6183-01	52.37	2.349	.4254	570.1	.7704-03	.8446-03
24	420.00	.42600	21.000	.4480-01	.5424-01	.6063-01	52.43	2.517	.4243	568.6	.7556-03	.8446-03
24	420.00	.47800	22.000	.4791-01	.5798-01	.6480-01	52.53	3.443	.4243	567.1	.8078-03	.9027-03
24	420.00	.53000	23.000	.6541-01	.7913-01	.8840-01	52.64	3.955	.4232	567.1	.1102-02	.1232-02
24	420.00	.56700	24.000	.7501-01	.9071-01	.1013	52.73	2.801	.4222	565.8	.1264-02	.1412-02
24	420.00	.62000	25.000	.5301-01	.6408-01	.7155-01	52.83	3.801	.4212	564.4	.8929-03	.9970-03
24	420.00	.67000	26.000	.2073-01	.2505-01	.2796-01	52.91	1.097	.4203	563.3	.3490-03	.3896-03
24	420.00	.70500	27.000	.1274-01	.1540-01	.1719-01	52.96	.6749	.4198	562.6	.2146-03	.2395-03
24	420.00	.75000	28.000	.1044-01	.1262-01	.1408-01	52.96	.5531	.4198	562.6	.1758-03	.1963-03
24	420.00	.80000	29.000	.8254-02	.9967-02	.1112-01	53.13	.4385	.4180	560.2	.1389-03	.1550-03
24	420.00	.82400	30.000	.2909-02	.3509-02	.3914-02	53.32	1.551	.4160	557.5	.4891-04	.5455-04
24	445.00	.27500	1.0000	.2656-01	.3214-01	.3591-01	52.57	1.396	.4239	568.1	.4477-03	.5002-03
24	445.00	.30000	2.0000	.2750-01	.3327-01	.3717-01	52.62	1.447	.4234	567.4	.4636-03	.5179-03
24	445.00	.32500	3.0000	.2468-01	.2984-01	.3333-01	52.73	1.301	.4222	565.9	.4158-03	.4644-03
24	445.00	.35000	4.0000	.3269-01	.3953-01	.4416-01	52.69	1.722	.4227	566.5	.5508-03	.6152-03
24	445.00	.37500	5.0000	.3491-01	.4222-01	.4715-01	52.73	1.841	.4222	565.8	.5882-03	.6570-03
24	445.00	.40000	6.0000	.3801-01	.4597-01	.5134-01	52.70	2.003	.4225	566.2	.6404-03	.7154-03
24	445.00	.42500	7.0000	.3441-01	.4161-01	.4647-01	52.75	1.815	.4220	565.3	.5797-03	.6474-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 55-O, 50-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RAG823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
24	445.00	45000	8.0000	.3591-01	.4342-01	.4849-01	52.75	1.894	.4220	565.5	.6050-03	.6756-03
24	445.00	47500	9.0000	.3234-01	.3909-01	.4365-01	52.82	1.708	.4213	564.6	.5447-03	.6082-03
24	445.00	50000	10.000	.3326-01	.4020-01	.4488-01	52.86	1.758	.4208	564.0	.5601-03	.6254-03
24	445.00	52500	11.000	.3640-01	.4399-01	.4911-01	52.89	1.925	.4205	563.5	.6129-03	.6843-03
24	445.00	55000	12.000	.3411-01	.4122-01	.4601-01	52.94	1.806	.4200	562.8	.5744-03	.6412-03
24	445.00	60000	13.000	.4072-01	.4918-01	.5489-01	53.05	2.160	.4188	561.3	.6854-03	.7649-03
24	445.00	65000	14.000	.5785-01	.6987-01	.7796-01	53.09	3.071	.4184	560.8	.9736-03	.1086-02
24	445.00	70000	15.000	.4927-01	.5948-01	.6635-01	53.20	2.621	.4172	559.1	.8289-03	.9247-03
24	445.00	75000	16.000	.1982-01	.2393-01	.2669-01	53.21	1.055	.4171	559.0	.3335-03	.3720-03
24	445.00	80000	17.000	.8564-02	.1033-01	.1152-01	53.39	.4572	.4152	556.4	.1440-03	.1605-03

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RA6823)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 3.700

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
26	3.516	5.280	34.20	.0000	309.4	1377.	337.5	.4156	213.9	.1630-03	3785.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .2853										
26	.0000											

TEST DATA

RUN NUMBER	ZB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
26	355.00	71.000	.1005	.1203	.1334	58.47	5.875	.3925	552.1	.1728-02	.1917-02
26	355.00	72.000	.2801-01	.3355-01	.3724-01	58.26	1.632	.3946	555.0	.4819-03	.5348-03
26	355.00	73.000	.1788-01	.2142-01	.2377-01	58.23	1.041	.3949	555.5	.3076-03	.3414-03
26	355.00	74.000	.2054-01	.2459-01	.2729-01	58.34	1.198	.3938	553.9	.3532-03	.3919-03
26	355.00	75.000	.2937-02	.3509-02	.3887-02	59.07	1.735	.3865	543.6	.5041-04	.5585-04
26	372.50	56.000	.2502-01	.3001-01	.3334-01	57.84	1.447	.3988	560.9	.4309-03	.4787-03
26	372.50	57.000	.5195-01	.6229-01	.6918-01	57.96	3.011	.3976	559.2	.8945-03	.9933-03
26	372.50	58.000	.4539-01	.5443-01	.6044-01	58.07	2.630	.3977	559.4	.7815-03	.8679-03
26	372.50	59.000	.4021-01	.4819-01	.5351-01	58.16	2.335	.3965	557.7	.6921-03	.7684-03
26	372.50	60.000	.5088-01	.6086-01	.6767-01	58.19	2.359	.3957	556.5	.8755-03	.9718-03
26	372.50	61.000	.3509-01	.4205-01	.4667-01	58.30	2.042	.3953	556.0	.6038-03	.6702-03
26	372.50	62.000	.1928-01	.2310-01	.2563-01	58.38	1.124	.3942	554.5	.3317-03	.3681-03
26	372.50	63.000	.1145-01	.1371-01	.1521-01	58.51	.6882	.3934	553.4	.1969-03	.2184-03
26	372.50	64.000	.6920-02	.8283-02	.9187-02	58.51	.4049	.3921	551.5	.1190-03	.1320-03
26	372.50	65.000	.4191-02	.5013-02	.5558-02	58.69	.2459	.3903	549.0	.7201-04	.7985-04
26	372.50	66.000	.3956-02	.4732-02	.5246-02	58.75	.2325	.3896	548.1	.6798-04	.7536-04
26	372.50	67.000	.3216-02	.3844-02	.4260-02	58.88	.1893	.3884	546.3	.5523-04	.6121-04
26	372.50	68.000	.4047-02	.4837-02	.5360-02	58.93	.2384	.3879	545.7	.6949-04	.7701-04
26	372.50	69.000	.4390-02	.5247-02	.5814-02	58.95	.2588	.3877	545.3	.7538-04	.8354-04
26	372.50	70.000	.3989-02	.4770-02	.5285-02	58.74	.2343	.3898	548.2	.6853-04	.7598-04
26	400.00	31.000	.2999-01	.3593-01	.3987-01	58.24	1.747	.3949	555.4	.5160-03	.5727-03
26	400.00	32.000	.6221-01	.7465-01	.8294-01	57.72	3.590	.4000	562.7	.1072-02	.1191-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RA0823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
26	400.00	25000	33.000	.4562-01	.5479-01	.6091-01	57.48	2.622	.4024	566.0	.7865-03	.8743-03
26	400.00	27500	34.000	.2535-01	.3042-01	.3382-01	57.41	1.454	.4031	567.0	.4367-03	.4855-03
26	400.00	30000	35.000	.1421-01	.1706-01	.1897-01	57.48	.8166	.4024	566.0	.2449-03	.2723-03
26	400.00	32500	36.000	.2281-01	.2739-01	.3044-01	57.54	1.312	.4018	565.2	.3932-03	.4370-03
26	400.00	35000	37.000	.4935-01	.5924-01	.6583-01	57.64	2.844	.4009	563.8	.8504-03	.9451-03
26	400.00	37500	38.000	.4581-01	.5500-01	.6112-01	57.60	2.639	.4012	564.4	.7895-03	.8775-03
26	400.00	40000	39.000	.4153-01	.4981-01	.5533-01	57.83	2.401	.3989	561.1	.7152-03	.7945-03
26	400.00	42500	40.000	.4475-01	.5369-01	.5965-01	57.79	2.586	.3993	561.7	.7709-03	.8564-03
26	400.00	45000	41.000	.6789-01	.8142-01	.9044-01	57.88	3.929	.3984	560.5	.1169-02	.1299-02
26	400.00	47500	42.000	.7711-01	.9248-01	1.027	57.92	4.466	.3980	559.9	.1328-02	.1475-02
26	400.00	50000	43.000	.6945-01	.8327-01	.9247-01	57.99	4.028	.3973	558.9	.1196-02	.1328-02
26	400.00	52500	44.000	.4281-01	.5138-01	.5704-01	58.09	2.490	.3963	557.5	.7378-03	.8191-03
26	400.00	55000	45.000	.3193-01	.3826-01	.4247-01	58.17	1.857	.3955	556.3	.5494-03	.6099-03
26	400.00	60000	46.000	.1348-01	.1615-01	.1792-01	58.29	.7859	.3943	554.7	.2320-03	.2574-03
26	400.00	65000	47.000	.8069-02	.9662-02	1.072-01	58.38	.4710	.3934	553.4	.1388-03	.1540-03
26	400.00	70000	48.000	.6499-02	.7779-02	.8629-02	58.47	.3800	.3925	552.0	.1117-03	.1239-03
26	400.00	75000	49.000	.6753-02	.8086-02	.8971-02	58.45	.3949	.3927	552.3	.1162-03	.1288-03
26	400.00	80000	50.000	.5441-02	.6511-02	.7221-02	58.57	.3187	.3915	550.7	.9352-04	.1037-03
26	400.00	85000	51.000	.2077-02	.2481-02	.2748-02	59.13	.1228	.3859	542.8	.3565-04	.3949-04
26	400.00	87500	52.000	.1202-02	.1436-02	.1590-02	59.25	.7124-01	.3847	541.1	.2063-04	.2289-04
26	400.00	90000	53.000	.9295-04	.1110-03	.1229-03	59.29	.5511-02	.3842	540.5	.1595-05	.1766-05
26	400.00	92500	54.000	.5454-03	.6512-03	.7211-03	59.30	.3235-01	.3842	540.4	.9358-05	.1036-04
26	400.00	95000	55.000	.1848-02	.2206-02	.2442-02	59.42	.1098	.3830	538.7	.3170-04	.3510-04
26	420.00	28500	18.000	.3520-01	.4227-01	.4699-01	57.50	2.024	.4022	565.7	.6068-03	.6745-03
26	420.00	33700	19.000	.1782-01	.2140-01	.2378-01	57.56	1.026	.4016	564.9	.3072-03	.3414-03
26	420.00	39000	20.000	.4420-01	.5305-01	.5895-01	57.69	2.550	.4003	563.0	.7616-03	.8463-03
26	420.00	42600	21.000	.4174-01	.5008-01	.5563-01	57.78	2.412	.3994	561.8	.7190-03	.7988-03
26	420.00	47800	22.000	.4897-01	.5873-01	.6522-01	57.92	2.836	.3980	559.9	.8432-03	.9365-03
26	420.00	53000	23.000	.7056-01	.8458-01	.9391-01	58.05	4.096	.3968	558.1	.1215-02	.1349-02
26	420.00	56700	24.000	.6995-01	.8382-01	.9304-01	58.15	4.068	.3957	556.6	.1204-02	.1336-02
26	420.00	62000	25.000	.4439-01	.5323-01	.5912-01	57.91	2.571	.3981	560.0	.7644-03	.8489-03
26	420.00	67000	26.000	.1417-01	.1697-01	.1883-01	58.38	.8275	.3934	553.3	.2438-03	.2704-03
26	420.00	70500	27.000	.9737-02	.1166-01	.1293-01	58.45	.5691	.3927	552.4	.1674-03	.1857-03
26	420.00	75000	28.000	.8556-02	.1024-01	.1136-01	58.47	.5002	.3925	552.1	.1471-03	.1632-03
26	420.00	80000	29.000	.5085-02	.6081-02	.6742-02	58.74	.2987	.3898	548.2	.8736-04	.9686-04
26	420.00	82400	30.000	.1207-02	.1441-02	.1596-02	59.26	.7152-01	.3846	541.0	.2071-04	.2293-04
26	445.00	27500	1.0000	.2824-01	.3386-01	.3760-01	57.99	1.638	.3973	558.8	.4862-03	.5399-03
26	445.00	30000	2.0000	.2965-01	.3554-01	.3946-01	58.06	1.722	.3966	557.9	.5104-03	.5667-03
26	445.00	32500	3.0000	.1599-01	.1916-01	.2127-01	58.22	.9310	.3950	555.7	.2752-03	.3054-03
26	445.00	35000	4.0000	.1898-01	.2275-01	.2525-01	58.17	1.104	.3955	556.3	.3267-03	.3626-03
26	445.00	37500	5.0000	.3137-01	.3757-01	.4170-01	58.25	1.827	.3947	555.1	.5396-03	.5989-03
26	445.00	40000	6.0000	.4064-01	.4870-01	.5405-01	58.21	2.366	.3951	555.8	.6993-03	.7762-03
26	445.00	42500	7.0000	.3682-01	.4411-01	.4895-01	58.27	2.145	.3945	555.0	.6335-03	.7030-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG823)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
26	445.00	.45000	8.0000	.3590-01	.4300-01	.4772-01	58.28	2.092	.3944	554.8	.6176-03	.6854-03
26	445.00	.47500	9.0000	.3111-01	.3725-01	.4133-01	58.37	1.816	.3935	553.5	.5350-03	.5936-03
26	445.00	.50000	10.000	.3313-01	.3966-01	.4400-01	58.43	1.936	.3929	552.7	.5697-03	.6320-03
26	445.00	.52500	11.000	.3581-01	.4286-01	.4755-01	58.45	2.093	.3927	552.3	.6157-03	.6830-03
26	445.00	.55000	12.000	.3555-01	.4255-01	.4720-01	58.50	2.079	.3922	551.7	.6111-03	.6779-03
26	445.00	.60000	13.000	.4303-01	.5149-01	.5710-01	58.60	2.521	.3912	550.3	.7396-03	.8202-03
26	445.00	.65000	14.000	.6208-01	.7428-01	.8237-01	58.62	3.639	.3910	550.0	.1067-02	.1183-02
26	445.00	.70000	15.000	.3374-01	.4035-01	.4472-01	58.79	1.983	.3893	547.6	.5796-03	.6425-03
26	445.00	.75000	16.000	.1201-01	.1435-01	.1591-01	58.83	.7063	.3888	546.9	.2062-03	.2286-03
26	445.00	.80000	17.000	.4024-02	.4807-02	.5325-02	59.12	.2379	.3859	542.9	.6907-04	.7651-04

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAG824)

FUSELAGE (56-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
15	4.691	5.280	20.00	.0000	411.9	1376.	337.0	.5533	213.6	.2174-03	3782.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3292										
15	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
15	355.00	.20000	71.000	.9583-01	.1152	.1282	65.73	6.299	.4066	571.1	.1432-02	.1594-02
15	355.00	.22500	72.000	.6427-01	.7735-01	.8612-01	65.48	4.208	.4089	574.3	.9612-02	.1070-02
15	355.00	.25000	73.000	.3789-01	.4562-01	.5079-01	65.42	2.479	.4093	574.9	.5668-03	.6311-03
15	355.00	.27500	74.000	.2719-01	.3271-01	.3641-01	65.61	1.784	.4077	572.7	.4065-03	.4524-03
15	355.00	.80000	75.000	.2877-02	.3456-02	.3843-02	66.09	.1901	.4036	566.8	.4296-04	.4777-04
15	372.50	.30000	56.000	.2669-01	.3217-01	.3585-01	65.01	1.735	.4129	580.0	.3996-03	.4454-03
15	372.50	.32500	57.000	.2820-01	.3397-01	.3785-01	65.15	1.837	.4117	578.3	.4221-03	.4702-03
15	372.50	.35000	58.000	.3302-01	.3977-01	.4431-01	65.16	2.151	.4116	578.1	.4942-03	.5505-03
15	372.50	.37500	59.000	.3675-01	.4426-01	.4930-01	65.28	2.399	.4106	576.6	.5499-03	.6125-03
15	372.50	.40000	60.000	.4712-01	.5672-01	.6316-01	65.41	3.082	.4095	575.1	.7048-03	.7848-03
15	372.50	.42500	61.000	.5485-01	.6603-01	.7352-01	65.42	3.588	.4094	575.0	.8205-03	.9136-03
15	372.50	.45000	62.000	.5847-01	.7036-01	.7832-01	65.54	3.832	.4083	573.5	.8743-03	.9733-03
15	372.50	.47500	63.000	.5947-01	.7156-01	.7964-01	65.61	3.902	.4077	572.6	.8892-03	.9897-03
15	372.50	.50000	64.000	.5336-01	.6417-01	.7140-01	65.78	3.510	.4062	570.6	.7975-03	.8874-03
15	372.50	.52500	65.000	.4146-01	.4983-01	.5543-01	65.96	2.735	.4047	568.4	.6194-03	.6889-03
15	372.50	.55000	66.000	.3016-01	.3625-01	.4031-01	66.01	1.991	.4042	567.7	.4505-03	.5010-03
15	372.50	.60000	67.000	.1448-01	.1740-01	.1935-01	66.09	.9572	.4035	566.7	.2163-03	.2405-03
15	372.50	.65000	68.000	.1013-01	.1217-01	.1353-01	66.08	.6693	.4036	566.8	.1513-03	.1682-03
15	372.50	.70000	69.000	.7877-02	.9464-02	.1053-01	66.06	.5203	.4038	567.2	.1176-03	.1308-03
15	372.50	.75000	70.000	.6198-02	.7456-02	.8297-02	65.69	.4071	.4071	571.7	.9265-04	.1031-03
15	400.00	.20000	31.000	.8290-01	.9977-01	.1111	65.53	5.432	.4084	573.7	.1240-02	.1380-02
15	400.00	.22500	32.000	.5635-01	.6795-01	.7575-01	64.87	3.655	.4142	581.8	.8441-03	.9409-03

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
15	400.00	25000	33.000	.3910-01	.4718-01	.5262-01	64.62	2.527	.4163	584.7	5860-03	.6536-03
15	400.00	27500	34.000	.3072-01	.3708-01	.4136-01	64.54	1.982	.4171	585.8	.4605-03	.5137-03
15	400.00	30000	35.000	.2998-01	.3618-01	.4035-01	64.61	1.937	.4165	584.9	.4494-03	.5012-03
15	400.00	32500	36.000	.3234-01	.3902-01	.4352-01	64.66	2.091	.4160	584.3	.4847-03	.5405-03
15	400.00	35000	37.000	.3379-01	.4076-01	.4544-01	64.75	2.188	.4152	583.2	.5062-03	.5645-03
15	400.00	37500	38.000	.3727-01	.4496-01	.5013-01	64.97	2.413	.4133	583.2	.5584-03	.6227-03
15	400.00	40000	39.000	.3155-01	.3803-01	.4238-01	64.91	2.050	.4133	580.5	.4724-03	.5265-03
15	400.00	42500	40.000	.3667-01	.4421-01	.4928-01	64.97	2.380	.4138	581.2	.5492-03	.6121-03
15	400.00	45000	41.000	.3886-01	.4683-01	.5218-01	65.07	2.529	.4124	579.3	.5818-03	.6483-03
15	400.00	47500	42.000	.4038-01	.4865-01	.5421-01	65.09	2.628	.4122	579.0	.6045-03	.6735-03
15	400.00	50000	43.000	.4384-01	.5281-01	.5884-01	65.14	2.856	.4118	578.4	.6562-03	.7310-03
15	400.00	52500	44.000	.4692-01	.5652-01	.6296-01	65.21	3.060	.4112	577.5	.7022-03	.7822-03
15	400.00	55000	45.000	.5267-01	.6343-01	.7056-01	65.26	3.437	.4108	576.9	.7881-03	.8779-03
15	400.00	60000	46.000	.5863-01	.7060-01	.7863-01	65.33	3.830	.4102	576.1	.8772-03	.9770-03
15	400.00	65000	47.000	.4639-01	.5585-01	.6219-01	65.40	3.034	.4096	575.2	.6940-03	.7727-03
15	400.00	70000	48.000	.2645-01	.3183-01	.3544-01	65.45	1.731	.4091	574.6	.3956-03	.4404-03
15	400.00	75000	49.000	.1564-01	.1884-01	.2098-01	65.33	1.022	.4101	575.1	.2340-03	.2606-03
15	400.00	80000	50.000	.1032-01	.1243-01	.1394-01	65.41	.6752	.4094	576.0	.1544-03	.1719-03
15	400.00	85000	51.000	.1213-01	.1457-01	.1621-01	66.09	.8017	.4036	566.8	.1812-03	.2014-03
15	400.00	87500	52.000	.3832-01	.4602-01	.5116-01	66.20	2.037	.4025	565.4	.5721-03	.6360-03
15	400.00	90000	53.000	.3057-01	.3670-01	.4080-01	66.27	2.026	.4020	564.6	.4563-03	.5072-03
15	400.00	92500	54.000	.2550-01	.3062-01	.3404-01	66.25	1.689	.4022	564.8	.3807-03	.4232-03
15	400.00	95000	55.000	.2133-01	.2560-01	.2845-01	66.42	1.417	.4006	562.7	.3183-03	.3537-03
15	420.00	28500	18.000	.2887-01	.3484-01	.3895-01	64.70	1.868	.4156	583.8	.4327-03	.4825-03
15	420.00	33700	19.000	.3432-01	.4140-01	.4615-01	64.89	2.223	.4150	582.8	.5142-03	.5733-03
15	420.00	39000	20.000	.3760-01	.4533-01	.5053-01	64.89	2.441	.4140	581.4	.5631-03	.6277-03
15	420.00	42600	21.000	.3712-01	.4475-01	.4987-01	64.96	2.411	.4134	580.6	.5559-03	.6195-03
15	420.00	47800	22.000	.4234-01	.5103-01	.5686-01	65.08	2.756	.4123	579.1	.6339-03	.7064-03
15	420.00	53000	23.000	.4496-01	.5417-01	.6035-01	65.16	2.930	.4117	578.2	.6730-03	.7497-03
15	420.00	56700	24.000	.4834-01	.5822-01	.6485-01	65.23	3.153	.4110	577.3	.7234-03	.8058-03
15	420.00	62000	25.000	.5483-01	.6604-01	.7355-01	65.27	3.579	.4107	576.8	.8205-03	.9139-03
15	420.00	67000	26.000	.5806-01	.6991-01	.7786-01	65.34	3.794	.4101	576.0	.8687-03	.9674-03
15	420.00	70500	27.000	.5577-01	.6715-01	.7478-01	65.36	3.645	.4099	575.8	.8344-03	.9292-03
15	420.00	75000	28.000	.4255-01	.5124-01	.5707-01	65.31	2.779	.4104	576.4	.6367-03	.7091-03
15	420.00	80000	29.000	.2608-01	.3138-01	.3492-01	65.62	1.711	.4076	572.5	.3899-03	.4340-03
15	420.00	82400	30.000	.1135-01	.1362-01	.1514-01	66.28	.7521	.4019	564.4	.1694-03	.1883-03
15	445.00	27500	1.0000	.2371-01	.2854-01	.3178-01	65.39	1.550	.4096	564.3	.3547-03	.3949-03
15	445.00	30000	2.0000	.2416-01	.2908-01	.3238-01	65.49	1.583	.4088	574.1	.3614-03	.4023-03
15	445.00	32500	3.0000	.2412-01	.2901-01	.3228-01	65.70	1.584	.4069	571.5	.3605-03	.4012-03
15	445.00	35000	4.0000	.2811-01	.3383-01	.3765-01	65.61	1.845	.4077	572.6	.4203-03	.4679-03
15	445.00	37500	5.0000	.2735-01	.3290-01	.3662-01	65.70	1.797	.4069	571.5	.4089-03	.4550-03
15	445.00	40000	6.0000	.2932-01	.3527-01	.3926-01	65.62	1.924	.4076	572.5	.4383-03	.4879-03
15	445.00	42500	7.0000	.2772-01	.3334-01	.3710-01	65.70	1.821	.4069	571.5	.4143-03	.4611-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
15	445.00	.45000	8.0000	.3121-01	.3755-01	.4179-01	65.66	2.049	.4073	572.1	.4666-03	.5193-03
15	445.00	.47500	9.0000	.3153-01	.3804-01	.4233-01	65.76	2.080	.4064	570.9	.4728-03	.5261-03
15	445.00	.50000	10.000	.3373-01	.4057-01	.4513-01	65.79	2.220	.4061	570.4	.5041-03	.5509-03
15	445.00	.52500	11.000	.3556-01	.4276-01	.4759-01	65.75	2.338	.4065	571.0	.5315-03	.5914-03
15	445.00	.55000	12.000	.3570-01	.4293-01	.4777-01	65.77	2.348	.4064	570.7	.5335-03	.5937-03
15	445.00	.60000	13.000	.3641-01	.4377-01	.4870-01	65.82	2.396	.4059	570.1	.5440-03	.6053-03
15	445.00	.65000	14.000	.4367-01	.5252-01	.5845-01	65.75	2.872	.4055	570.9	.6527-03	.7263-03
15	445.00	.70000	15.000	.4615-01	.5549-01	.6173-01	65.87	3.040	.4055	569.5	.6896-03	.7672-03
15	445.00	.75000	16.000	.4382-01	.5275-01	.5873-01	65.43	2.867	.4093	574.8	.6554-03	.7298-03
15	445.00	.80000	17.000	.3546-01	.4260-01	.4736-01	66.15	2.346	.4030	566.0	.5295-03	.5887-03

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
17	5.302	5.280	22.50	.0000	411.2	1272.	310.4	.5555	196.7	.2369-03	3630.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540										
17	.0000	.3270										

TEST DATA

RUN NUMBER	ZB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
17	355.00	71.000	.9810-01	.1191	.1334	57.52	5.643	.4329	560.1	.1407-02	.1575-02
17	355.00	72.000	.7018-01	.8528-01	.9557-01	57.27	4.019	.4353	563.2	.1007-02	.1128-02
17	355.00	73.000	.4524-01	.5498-01	.6161-01	57.23	2.589	.4357	563.7	.6492-03	.7275-03
17	355.00	74.000	.3183-01	.3867-01	.4332-01	57.38	1.826	.4343	561.9	.4566-03	.5115-03
17	355.00	75.000	.7015-03	.8509-03	.9523-03	57.77	.4053-01	.4305	557.0	.1005-04	.1125-04
17	372.50	56.000	.3562-01	.4335-01	.4863-01	56.85	2.025	.4393	568.4	.5117-03	.5740-03
17	372.50	57.000	.3600-01	.4380-01	.4911-01	57.00	2.052	.4380	566.6	.5171-03	.5798-03
17	372.50	58.000	.4081-01	.4964-01	.5566-01	57.10	2.326	.4380	566.6	.5860-03	.6571-03
17	372.50	59.000	.4918-01	.5981-01	.6705-01	57.17	2.808	.4370	565.3	.7061-03	.7916-03
17	372.50	60.000	.6272-01	.7625-01	.8546-01	57.21	3.586	.4363	564.4	.9003-03	.1009-02
17	372.50	61.000	.6654-01	.8088-01	.9065-01	57.31	3.806	.4359	564.0	.9550-03	.1070-02
17	372.50	62.000	.5978-01	.7264-01	.8139-01	57.37	3.426	.4350	562.7	.9610-03	.1070-02
17	372.50	63.000	.4865-01	.5910-01	.6621-01	57.50	2.791	.4344	562.0	.6979-03	.7818-03
17	372.50	64.000	.3385-01	.4110-01	.4603-01	57.50	1.946	.4342	560.4	.4853-03	.5435-03
17	372.50	65.000	.2464-01	.2990-01	.3347-01	57.67	1.421	.4315	558.3	.3531-03	.3953-03
17	372.50	66.000	.1733-01	.2103-01	.2354-01	57.70	1.000	.4312	557.9	.2484-03	.2780-03
17	372.50	67.000	.1064-01	.1291-01	.1444-01	57.77	.6147	.4305	557.0	.1524-03	.1706-03
17	372.50	68.000	.8163-02	.9902-02	.1108-01	57.74	.4713	.4308	557.4	.1170-03	.1309-03
17	372.50	69.000	.5488-02	.6658-02	.7453-02	57.72	.3168	.4310	557.7	.7863-04	.8802-04
17	372.50	70.000	.3952-02	.4800-02	.5377-02	57.43	.2270	.4338	561.2	.5668-04	.6349-04
17	400.00	31.000	.8628-01	.1048	.1175	57.32	4.946	.4349	562.6	.1238-02	.1387-02
17	400.00	32.000	.5708-01	.6950-01	.7798-01	56.75	3.239	.4403	559.7	.8204-03	.9205-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
17	400.00	25000	33.000	3869-01	4715-01	5293-01	56.52	2.187	4425	572.5	5565-03	6248-03
17	400.00	27500	34.000	3306-01	4030-01	4525-01	56.46	1.867	4431	573.3	5565-03	5341-03
17	400.00	30000	35.000	3362-01	4097-01	4599-01	56.53	1.900	4424	572.4	4835-03	5429-03
17	400.00	32500	36.000	4054-01	4939-01	5544-01	56.58	2.294	4420	571.8	5830-03	6544-03
17	400.00	35000	37.000	4304-01	5243-01	5884-01	56.64	2.438	4414	571.0	6188-03	6946-03
17	400.00	37500	38.000	4130-01	5031-01	5646-01	56.65	2.340	4412	570.9	5938-03	6665-03
17	400.00	40000	39.000	4024-01	4898-01	5494-01	56.83	2.287	4396	568.7	5782-03	6486-03
17	400.00	42500	40.000	4371-01	5321-01	5970-01	56.80	2.483	4399	569.1	6282-03	7047-03
17	400.00	45000	41.000	4660-01	5671-01	6360-01	56.91	2.652	4388	567.7	6695-03	7509-03
17	400.00	47500	42.000	5124-01	6234-01	6992-01	56.93	2.917	4386	567.4	7360-03	8254-03
17	400.00	50000	43.000	5619-01	6836-01	7666-01	56.96	3.201	4382	567.0	8070-03	9050-03
17	400.00	52500	44.000	5641-01	6861-01	7693-01	57.03	3.217	4376	566.1	8100-03	9082-03
17	400.00	55000	45.000	5755-01	6999-01	7847-01	57.08	3.285	4372	565.6	8263-03	9264-03
17	400.00	60000	46.000	5090-01	6189-01	6938-01	57.11	2.907	4368	565.2	7307-03	8191-03
17	400.00	65000	47.000	2788-01	3389-01	3799-01	57.15	1.593	4365	564.7	4002-03	4486-03
17	400.00	70000	48.000	1522-01	1850-01	2074-01	57.19	1.8705	4361	564.2	2185-03	2449-03
17	400.00	75000	49.000	9008-02	1095-01	1228-01	57.21	1.5145	4368	565.2	1293-03	1450-03
17	400.00	80000	50.000	8541-02	1038-01	1164-01	57.21	1.4886	4359	564.0	1226-03	1374-03
17	400.00	85000	51.000	1436-01	1741-01	1948-01	57.82	1.8301	4300	556.4	2056-03	2301-03
17	400.00	87500	52.000	3198-01	3876-01	4337-01	57.95	1.853	4289	554.9	4579-03	5122-03
17	400.00	90000	53.000	2376-01	2880-01	3221-01	58.00	1.378	4283	554.1	3402-03	3805-03
17	400.00	92500	54.000	2034-01	2465-01	2757-01	58.01	1.180	4283	554.1	2912-03	3257-03
17	400.00	95000	55.000	1793-01	2177-01	2438-01	57.45	1.030	4236	561.0	2571-03	2879-03
17	420.00	28500	18.000	3035-01	3697-01	4150-01	56.60	1.718	4417	571.5	4364-03	4898-03
17	420.00	33700	19.000	3825-01	4658-01	5228-01	56.66	2.167	4412	570.8	5498-03	6171-03
17	420.00	39000	20.000	4309-01	5247-01	5887-01	56.76	2.446	4402	569.5	6193-03	6949-03
17	420.00	42600	21.000	4822-01	5870-01	6585-01	56.83	2.741	4395	568.6	6929-03	7773-03
17	420.00	47800	22.000	4770-01	5804-01	6509-01	56.93	2.715	4386	567.4	6852-03	7684-03
17	420.00	53000	23.000	5339-01	6494-01	7282-01	56.99	3.042	4381	566.7	7667-03	8598-03
17	420.00	56700	24.000	5690-01	6921-01	7760-01	57.03	3.245	4376	566.2	8171-03	9162-03
17	420.00	62000	25.000	5483-01	6668-01	7475-01	57.08	3.202	4371	565.5	7872-03	8826-03
17	420.00	67000	26.000	5604-01	6814-01	7639-01	57.13	3.130	4367	565.0	8045-03	9019-03
17	420.00	70500	27.000	4432-01	5386-01	6037-01	57.14	2.531	4366	564.8	6359-03	7128-03
17	420.00	75000	28.000	2432-01	2957-01	3314-01	57.12	1.389	4367	565.0	3491-03	3913-03
17	420.00	80000	29.000	1645-01	1998-01	2238-01	57.41	1.9445	4340	561.5	2360-03	2843-03
17	420.00	82400	30.000	5971-02	7237-02	8095-02	57.99	3.463	4284	554.3	8548-04	9562-04
17	445.00	27500	1.0000	2346-01	2852-01	3196-01	57.16	1.341	4364	564.6	3367-03	3774-03
17	445.00	30000	2.0000	2371-01	2882-01	3230-01	57.26	1.358	4355	563.4	3403-03	3813-03
17	445.00	32500	3.0000	2431-01	2952-01	3306-01	57.44	1.396	4337	561.1	3486-03	3904-03
17	445.00	35000	4.0000	2987-01	3629-01	4065-01	57.37	1.714	4343	561.9	4285-03	4800-03
17	445.00	37500	5.0000	2843-01	3453-01	3867-01	57.45	1.633	4336	561.0	4077-03	4567-03
17	445.00	40000	6.0000	3222-01	3913-01	4384-01	57.38	1.848	4343	561.9	4621-03	5177-03
17	445.00	42500	7.0000	2994-01	3636-01	4073-01	57.43	1.720	4338	561.2	4294-03	4810-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
17	445.00	.45000	8.0000	.3800-01	.4615-01	.5169-01	57.42	2.182	.4339	561.4	.5449-03	.6104-03
17	445.00	.47500	9.0000	.3677-01	.4465-01	.5001-01	57.49	2.114	.4333	560.6	.5273-03	.5906-03
17	445.00	.50000	10.0000	.3696-01	.4487-01	.5026-01	57.51	2.125	.4331	560.3	.5299-03	.5935-03
17	445.00	.52500	11.0000	.3941-01	.4785-01	.5359-01	57.48	2.265	.4333	560.6	.5651-03	.6329-03
17	445.00	.55000	12.0000	.3943-01	.4788-01	.5362-01	57.50	2.267	.4331	560.3	.5654-03	.6332-03
17	445.00	.60000	13.0000	.4237-01	.5143-01	.5760-01	57.54	2.438	.4327	559.9	.6074-03	.6802-03
17	445.00	.65000	14.0000	.4569-01	.5548-01	.6214-01	57.46	2.625	.4335	560.9	.6552-03	.7338-03
17	445.00	.70000	15.0000	.4210-01	.5110-01	.5722-01	57.57	2.424	.4324	559.4	.6034-03	.6757-03
17	445.00	.75000	16.0000	.4279-01	.5194-01	.5817-01	57.54	2.462	.4328	559.9	.6134-03	.6869-03
17	445.00	.80000	17.0000	.3720-01	.4511-01	.5047-01	57.87	2.153	.4296	555.8	.5328-03	.5962-03

DATE 20 MAR 81

OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB24)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
19	4.990	5.280	25.00	.0000	405.9	1311.	320.4	.5473	203.1	.2261-03	3688.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3257										
19	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
19	355.00	.20000	71.000	.6898-01	.8337-01	.9307-01	60.43	4.168	.4204	561.5	.1011-02	.1129-02
19	355.00	.22500	72.000	.7232-01	.8747-01	.9771-01	60.18	4.353	.4227	564.5	.1061-02	.1185-02
19	355.00	.25000	73.000	.5034-01	.6090-01	.6804-01	60.13	3.027	.4232	565.1	.7384-03	.8249-03
19	355.00	.27500	74.000	.3437-01	.4156-01	.4642-01	60.28	2.072	.4218	563.3	.5040-03	.5628-03
19	355.00	.30000	75.000	.4334-02	.5232-02	.5837-02	60.73	.2632	.4176	557.7	.6346-04	.7080-04
19	372.50	.32500	56.000	.3797-01	.4599-01	.5142-01	59.76	2.269	.4267	569.8	.5575-03	.6233-03
19	372.50	.35000	57.000	.3630-01	.4394-01	.4912-01	59.89	2.174	.4254	568.1	.5327-03	.5955-03
19	372.50	.37500	58.000	.4172-01	.5051-01	.5645-01	59.91	2.499	.4253	567.9	.6123-03	.6844-03
19	372.50	.40000	59.000	.5082-01	.6150-01	.6872-01	60.01	3.049	.4243	566.6	.7456-03	.8332-03
19	372.50	.42500	60.000	.6418-01	.7765-01	.8675-01	60.11	3.858	.4234	565.4	.9415-03	.1052-02
19	372.50	.45000	61.000	.6831-01	.8264-01	.9233-01	60.13	4.107	.4232	565.2	.1002-02	.1119-02
19	372.50	.47500	62.000	.5991-01	.7245-01	.8032-01	60.23	3.608	.4232	563.9	.8785-03	.9812-03
19	372.50	.50000	63.000	.4607-01	.5570-01	.6220-01	60.29	2.777	.4217	563.2	.6754-03	.7542-03
19	372.50	.52500	64.000	.2741-01	.3312-01	.3698-01	60.43	1.656	.4204	561.5	.4017-03	.4484-03
19	372.50	.55000	65.000	.1841-01	.2224-01	.2482-01	60.60	1.116	.4188	559.3	.2697-03	.3010-03
19	372.50	.60000	66.000	.1291-01	.1559-01	.1740-01	60.63	.7828	.4185	558.9	.1891-03	.2110-03
19	372.50	.65000	67.000	.9054-02	.1093-01	.1220-01	60.69	.5495	.4180	558.2	.1326-03	.1479-03
19	372.50	.70000	68.000	.6237-02	.7532-02	.8404-02	60.67	.3784	.4182	558.5	.9135-04	.1019-03
19	372.50	.75000	69.000	.4684-02	.5656-02	.6311-02	60.66	.2841	.4182	558.5	.6859-04	.7654-04
19	372.50	.80000	70.000	.5399-02	.6526-02	.7287-02	60.38	.3260	.4209	562.1	.7914-04	.8836-04
19	400.00	.20000	31.000	.6967-01	.8427-01	.9413-01	60.19	4.194	.4226	564.4	.1022-02	.1141-02
19	400.00	.22500	32.000	.4614-01	.5592-01	.6254-01	59.60	2.750	.4281	571.7	.6778-03	.7581-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
19	400.00	25000	33.000	.3336-01	.4046-01	.4528-01	59.38	1.981	.4301	574.4	.4904-03	.5488-03
19	400.00	27500	34.000	.3531-01	.4283-01	.4794-01	59.31	2.094	.4308	575.3	.5191-03	.5811-03
19	400.00	30000	35.000	.3788-01	.4594-01	.5140-01	59.39	2.250	.4300	574.3	.5567-03	.6230-03
19	400.00	32500	36.000	.4388-01	.5321-01	.5954-01	59.44	2.609	.4296	573.7	.6450-03	.7217-03
19	400.00	35000	37.000	.4260-01	.5165-01	.5779-01	59.46	2.533	.4294	573.4	.6260-03	.7004-03
19	400.00	37500	38.000	.3960-01	.4801-01	.5371-01	59.51	2.356	.4290	572.9	.5819-03	.6510-03
19	400.00	40000	39.000	.3802-01	.4606-01	.5150-01	59.73	2.271	.4269	570.1	.5583-03	.6243-03
19	400.00	42500	40.000	.4675-01	.5664-01	.6334-01	59.69	2.907	.4282	570.6	.6866-03	.7678-03
19	400.00	45000	41.000	.4861-01	.5887-01	.6581-01	59.80	2.907	.4260	569.2	.7136-03	.7978-03
19	400.00	47500	42.000	.4868-01	.5895-01	.6590-01	59.83	2.912	.4282	568.9	.7147-03	.7989-03
19	400.00	50000	43.000	.4864-01	.5895-01	.6594-01	59.59	2.899	.4282	571.8	.7145-03	.7992-03
19	400.00	52500	44.000	.5298-01	.6415-01	.7169-01	59.95	3.177	.4249	567.4	.7777-03	.8691-03
19	400.00	55000	45.000	.5990-01	.7250-01	.8102-01	59.99	3.593	.4245	566.9	.8790-03	.9823-03
19	400.00	60000	46.000	.4619-01	.5590-01	.6246-01	60.04	2.773	.4241	566.3	.6777-03	.7573-03
19	400.00	65000	47.000	.2335-01	.2825-01	.3156-01	60.09	1.403	.4236	565.6	.3425-03	.3826-03
19	400.00	70000	48.000	.1202-01	.1454-01	.1624-01	60.14	.7228	.4231	565.0	.1763-03	.1969-03
19	400.00	75000	49.000	.9340-02	.1130-01	.1263-01	60.07	.5611	.4238	565.9	.1370-03	.1531-03
19	400.00	80000	50.000	.1145-01	.1385-01	.1548-01	60.17	.5892	.4228	564.6	.1680-03	.1876-03
19	400.00	85000	51.000	.2324-01	.2805-01	.3129-01	60.79	1.413	.4171	557.0	.3402-03	.3795-03
19	400.00	87500	52.000	.1826-01	.2204-01	.2458-01	60.98	.7619	.4160	555.6	.2673-03	.2981-03
19	400.00	90000	53.000	.1249-01	.1507-01	.1681-01	60.98	.7619	.4153	554.6	.1828-03	.2039-03
19	400.00	92500	54.000	.1180-01	.1424-01	.1588-01	60.98	.7198	.4153	554.6	.1727-03	.1926-03
19	400.00	95000	55.000	.1060-01	.1281-01	.1430-01	60.44	.6408	.4203	561.3	.1554-03	.1735-03
19	420.00	28500	18.000	.3212-01	.3895-01	.4358-01	59.45	1.910	.4295	573.6	.4721-03	.5282-03
19	420.00	33700	19.000	.4238-01	.5138-01	.6020-01	59.63	2.523	.4289	572.7	.6228-03	.6967-03
19	420.00	39000	20.000	.4441-01	.5382-01	.6202-01	59.63	2.649	.4278	571.3	.6524-03	.7297-03
19	420.00	42600	21.000	.4708-01	.5704-01	.6378-01	59.71	2.811	.4271	570.3	.6914-03	.7732-03
19	420.00	47800	22.000	.4827-01	.5845-01	.6535-01	59.82	2.887	.4261	569.0	.7086-03	.7922-03
19	420.00	53000	23.000	.4601-01	.5570-01	.6226-01	59.90	2.756	.4254	568.0	.6753-03	.7548-03
19	420.00	56700	24.000	.4551-01	.5513-01	.6165-01	59.73	2.719	.4269	570.1	.6683-03	.7473-03
19	420.00	62000	25.000	.5836-01	.7063-01	.7893-01	60.00	3.502	.4244	566.7	.8563-03	.9569-03
19	420.00	67000	26.000	.5217-01	.6312-01	.7052-01	60.08	3.134	.4237	565.8	.7653-03	.8551-03
19	420.00	70500	27.000	.3539-01	.4282-01	.4784-01	60.10	2.127	.4235	565.6	.5192-03	.5801-03
19	420.00	75000	28.000	.1994-01	.2413-01	.2696-01	60.08	1.198	.4237	565.8	.2925-03	.3268-03
19	420.00	80000	29.000	.1903-01	.2300-01	.2569-01	60.36	1.149	.4211	562.3	.2789-03	.3115-03
19	420.00	82400	30.000	.1306-01	.1576-01	.1757-01	60.95	.7961	.4156	555.0	.1911-03	.2131-03
19	445.00	27500	1.0000	.2095-01	.2535-01	.2833-01	60.03	1.258	.4241	566.4	.3074-03	.3435-03
19	445.00	30000	2.0000	.2422-01	.2930-01	.3273-01	60.12	1.456	.4232	565.2	.3553-03	.3969-03
19	445.00	32500	3.0000	.2684-01	.3244-01	.3623-01	60.32	1.619	.4215	562.8	.3934-03	.4393-03
19	445.00	35000	4.0000	.3324-01	.4019-01	.4489-01	60.24	2.002	.4222	563.8	.4874-03	.5443-03
19	445.00	37500	5.0000	.3063-01	.3703-01	.4135-01	60.32	1.848	.4214	562.8	.4490-03	.5014-03
19	445.00	40000	6.0000	.3348-01	.4049-01	.4522-01	60.26	2.018	.4220	563.6	.4910-03	.5483-03
19	445.00	42500	7.0000	.3293-01	.3981-01	.4446-01	60.32	1.987	.4214	562.8	.4828-03	.5391-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
19	445.00	.45000	8.0000	.4020-01	.4860-01	.5427-01	60.30	2.424	.4216	563.0	.5893-03	.6581-03
19	445.00	.47500	9.0000	.3914-01	.4730-01	.5282-01	60.38	2.363	.4209	562.1	.5736-03	.6405-03
19	445.00	.50000	10.000	.3885-01	.4696-01	.5243-01	60.40	2.347	.4207	561.8	.5694-03	.6357-03
19	445.00	.52500	11.000	.3923-01	.4741-01	.5294-01	60.38	2.369	.4208	562.0	.5749-03	.6419-03
19	445.00	.55000	12.000	.3685-01	.4454-01	.4972-01	60.40	2.226	.4207	561.8	.5401-03	.6030-03
19	445.00	.60000	13.000	.3379-01	.4083-01	.4558-01	60.45	2.043	.4202	561.1	.4952-03	.5528-03
19	445.00	.65000	14.000	.3921-01	.4739-01	.5291-01	60.40	2.368	.4207	561.8	.5746-03	.6416-03
19	445.00	.70000	15.000	.4384-01	.5296-01	.5911-01	60.52	2.653	.4195	560.3	.6423-03	.7169-03
19	445.00	.75000	16.000	.4336-01	.5246-01	.5861-01	60.11	2.606	.4234	565.4	.6360-03	.7106-03
19	445.00	.80000	17.000	.3383-01	.4083-01	.4554-01	60.82	2.057	.4168	556.6	.4952-03	.5523-03

DATE 20 MAR 81

OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0
OH110, MODEL 56-0, ORBITER FUSELAGEPAGE 287
(RAG824)

FUSELAGE (56-0)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
29	4.990	5.280	27.00	.0000	415.6	1331.	325.5	.5597	206.3	.2277-03	3717.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3299
29	.0000	

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
29	355.00	.20000	71.000	.1010	.1224	.1369	61.18	6.176	.4291	582.1	.1480-02	.1656-02
29	355.00	.22500	72.000	.7275-01	.8827-01	.9881-01	60.93	4.432	.4314	585.1	.1067-02	.1195-02
29	355.00	.25000	73.000	.4627-01	.5616-01	.6288-01	60.85	2.816	.4321	586.1	.6791-03	.7603-03
29	355.00	.27500	74.000	.3013-01	.3655-01	.4091-01	60.99	1.838	.4308	584.3	.4420-03	.4947-03
29	355.00	.80000	75.000	.6418-02	.7764-02	.8674-02	61.83	.3968	.4233	574.1	.9393-04	.1049-03
29	372.50	.30000	56.000	.3668-01	.4459-01	.4998-01	60.40	2.215	.4362	591.6	.5390-03	.6042-03
29	372.50	.32500	57.000	.4641-01	.5639-01	.6319-01	60.52	2.809	.4351	590.1	.6818-03	.7639-03
29	372.50	.35000	58.000	.5501-01	.6685-01	.7490-01	60.51	3.329	.4351	590.2	.8082-03	.9056-03
29	372.50	.40000	59.000	.6551-01	.7957-01	.8913-01	60.64	3.972	.4341	588.7	.9620-03	.1078-02
29	372.50	.42500	60.000	.7340-01	.8913-01	.9982-01	60.74	4.458	.4331	587.5	.1078-02	.1207-02
29	372.50	.45000	61.000	.6942-01	.8429-01	.9439-01	60.75	4.217	.4330	587.3	.1019-02	.1141-02
29	372.50	.47500	62.000	.4913-01	.5963-01	.6676-01	60.87	2.991	.4319	585.8	.7210-03	.8072-03
29	372.50	.50000	63.000	.2989-01	.3627-01	.4060-01	60.94	1.822	.4313	585.0	.4386-03	.4910-03
29	372.50	.52500	64.000	.1567-01	.1900-01	.2126-01	61.11	.9575	.4297	582.9	.2298-03	.2571-03
29	372.50	.55000	65.000	.1039-01	.1260-01	.1409-01	61.31	.6373	.4280	580.5	.1524-03	.1704-03
29	372.50	.60000	66.000	.8156-02	.9882-02	.1105-01	61.39	.5007	.4272	579.5	.1195-03	.1337-03
29	372.50	.65000	67.000	.5550-02	.6720-02	.7513-02	61.53	.3415	.4259	577.7	.8129-04	.9088-04
29	372.50	.70000	68.000	.4264-02	.5162-02	.5770-02	61.59	.2626	.4254	577.1	.6244-04	.6980-04
29	372.50	.75000	69.000	.3362-02	.4070-02	.4549-02	61.62	.2072	.4251	576.6	.4924-04	.5503-04
29	372.50	.80000	70.000	.5590-02	.7258-02	.8117-02	61.35	.3675	.4276	580.0	.8778-04	.9817-04
29	400.00	.20000	31.000	.7829-01	.9500-01	.1064	60.92	4.769	.4315	585.3	.1149-02	.1286-02
29	400.00	.22500	32.000	.5861-01	.7128-01	.7992-01	60.28	3.533	.4373	593.1	.8617-03	.9661-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-0, 60-0, 83-0

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OH110, MODEL 55-0, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
29	400.00	.25000	33.000	.4117-01	.5012-01	.5623-01	59.99	2.470	.4399	596.7	.6058-03	.6797-03
29	400.00	.27500	34.000	.3677-01	.4478-01	.5026-01	59.89	2.202	.4408	597.9	.5413-03	.6074-03
29	400.00	.30000	35.000	.3924-01	.4778-01	.5361-01	59.95	2.353	.4403	597.2	.5775-03	.6480-03
29	400.00	.32500	36.000	.4557-01	.5547-01	.6223-01	60.00	2.734	.4396	596.5	.6704-03	.7522-03
29	400.00	.35000	37.000	.4785-01	.5822-01	.6531-01	60.09	2.875	.4390	595.4	.7038-03	.7894-03
29	400.00	.37500	38.000	.4643-01	.5651-01	.6339-01	60.04	2.787	.4395	596.1	.6830-03	.7662-03
29	400.00	.40000	39.000	.4394-01	.5331-01	.5977-01	60.29	2.643	.4372	593.0	.6444-03	.7225-03
29	400.00	.42500	40.000	.4943-01	.6012-01	.6742-01	60.24	2.978	.4377	593.7	.7268-03	.8149-03
29	400.00	.45000	41.000	.4650-01	.5653-01	.6337-01	60.38	2.808	.4364	591.9	.6835-03	.7661-03
29	400.00	.47500	42.000	.4788-01	.5820-01	.6523-01	60.41	2.893	.4361	591.5	.7036-03	.7886-03
29	400.00	.50000	43.000	.5614-01	.6822-01	.7645-01	60.49	3.396	.4354	590.6	.8248-03	.9243-03
29	400.00	.52500	44.000	.6686-01	.8123-01	.9100-01	60.58	4.051	.4345	589.4	.9821-03	.1100-02
29	400.00	.55000	45.000	.6528-01	.7928-01	.8881-01	60.66	3.960	.4339	588.5	.9586-03	.1074-02
29	400.00	.60000	46.000	.3655-01	.4437-01	.4969-01	60.78	2.222	.4327	586.9	.5365-03	.6008-03
29	400.00	.65000	47.000	.1756-01	.2132-01	.2386-01	60.89	1.070	.4317	585.6	.2578-03	.2886-03
29	400.00	.70000	48.000	.9500-02	.1152-01	.1290-01	61.02	.5797	.4306	584.0	.1394-03	.1560-03
29	400.00	.75000	49.000	.1200-01	.1456-01	.1629-01	60.99	.7317	.4309	584.4	.1760-03	.1970-03
29	400.00	.80000	50.000	.1237-01	.1500-01	.1678-01	61.16	.7563	.4294	582.4	.1814-03	.2029-03
29	400.00	.85000	51.000	.1087-01	.1315-01	.1468-01	61.94	.6737	.4282	572.7	.1591-03	.1777-03
29	400.00	.87500	52.000	.8108-02	.9800-02	.1094-01	62.12	.5037	.4206	570.5	.1186-03	.1324-03
29	400.00	.90000	53.000	.9320-02	.1126-01	.1257-01	62.21	.5798	.4198	569.4	.1363-03	.1521-03
29	400.00	.92500	54.000	.1061-01	.1281-01	.1430-01	62.23	.6601	.4196	569.2	.1551-03	.1731-03
29	400.00	.95000	55.000	.1219-01	.1471-01	.1642-01	62.40	.7604	.4181	567.1	.1781-03	.1987-03
29	420.00	.28500	18.000	.3367-01	.4098-01	.4598-01	60.01	2.020	.4397	596.4	.4953-03	.5557-03
29	420.00	.33700	19.000	.4326-01	.5265-01	.5906-01	60.08	2.599	.4391	595.6	.6364-03	.7139-03
29	420.00	.39000	20.000	.4695-01	.5712-01	.6405-01	60.20	2.827	.4380	594.1	.6905-03	.7742-03
29	420.00	.42600	21.000	.4794-01	.5831-01	.6537-01	60.28	2.890	.4373	593.1	.7048-03	.7902-03
29	420.00	.47800	22.000	.4392-01	.5339-01	.5984-01	60.41	2.653	.4361	591.5	.6454-03	.7234-03
29	420.00	.53000	23.000	.4401-01	.5348-01	.5992-01	60.52	2.664	.4351	590.1	.6466-03	.7245-03
29	420.00	.56700	24.000	.5174-01	.6285-01	.7040-01	60.64	3.138	.4340	588.7	.7599-03	.8512-03
29	420.00	.62000	25.000	.6497-01	.7896-01	.8848-01	60.48	3.930	.4355	590.6	.9546-03	.1070-02
29	420.00	.67000	26.000	.4428-01	.5374-01	.6016-01	60.88	2.696	.4319	585.8	.6498-03	.7275-03
29	420.00	.70500	27.000	.2854-01	.3463-01	.3877-01	60.95	1.740	.4312	584.9	.4188-03	.4688-03
29	420.00	.75000	28.000	.2210-01	.2681-01	.3001-01	60.98	1.348	.4309	584.5	.3242-03	.3629-03
29	420.00	.80000	29.000	.1953-01	.2366-01	.2646-01	61.36	1.198	.4275	579.9	.2862-03	.3201-03
29	420.00	.82400	30.000	.5764-02	.6967-02	.7779-02	62.07	.3578	.4210	571.1	.8430-04	.9412-04
29	445.00	.27500	1.0000	.2424-01	.2944-01	.3297-01	60.65	1.470	.4339	588.6	.3559-03	.3987-03
29	445.00	.30000	2.0000	.2536-01	.3079-01	.3448-01	60.73	1.540	.4332	587.6	.3723-03	.4169-03
29	445.00	.32500	3.0000	.2666-01	.3235-01	.3622-01	60.91	1.624	.4316	585.3	.3912-03	.4380-03
29	445.00	.35000	4.0000	.3239-01	.3931-01	.4402-01	60.83	1.970	.4323	586.3	.4754-03	.5323-03
29	445.00	.37500	5.0000	.3164-01	.3839-01	.4297-01	60.93	1.927	.4314	585.2	.4642-03	.5197-03
29	445.00	.40000	6.0000	.3581-01	.4346-01	.4866-01	60.86	2.179	.4321	586.0	.5255-03	.5884-03
29	445.00	.42500	7.0000	.3509-01	.4258-01	.4767-01	60.94	2.139	.4313	585.1	.5149-03	.5764-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-O, 60-O, 83-O

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OH110, MODEL 56-O, ORBITER FUSELAGE

(RA0824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
29	445.00	.45000	8.0000	.3833-01	.4651-01	.5207-01	60.92	2.335	.4315	585.2	.5624-03	.6296-03
29	445.00	.47500	9.0000	.3704-01	.4493-01	.5028-01	61.03	2.260	.4305	584.0	.5433-03	.6081-03
29	445.00	.50000	10.000	.3524-01	.4273-01	.4782-01	61.07	2.152	.4301	583.4	.5168-03	.5784-03
29	445.00	.52500	11.000	.3405-01	.4129-01	.4621-01	61.07	2.079	.4301	583.4	.4994-03	.5588-03
29	445.00	.55000	12.000	.3317-01	.4022-01	.4501-01	61.11	2.027	.4298	583.0	.4864-03	.5443-03
29	445.00	.60000	13.000	.3362-01	.4076-01	.4560-01	61.22	2.058	.4288	581.6	.4930-03	.5515-03
29	445.00	.65000	14.000	.4245-01	.5145-01	.5756-01	61.23	2.599	.4287	581.5	.6223-03	.6962-03
29	445.00	.70000	15.000	.4439-01	.5377-01	.6012-01	61.43	2.727	.4269	579.0	.6504-03	.7272-03
29	445.00	.75000	16.000	.4193-01	.5079-01	.5678-01	61.49	2.579	.4263	578.2	.6143-03	.6868-03
29	445.00	.80000	17.000	.3187-01	.3855-01	.4307-01	61.87	1.972	.4229	573.6	.4664-03	.5211-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB24)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10.6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
23	4.776	5.280	30.00	.0000	409.7	1356.	331.8	.5509	210.3	.2198-03	3753.	.1750-01
RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3279										
23	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
23	355.00	.20000	71.000	.1044	.1254	.1394	64.89	6.772	.4033	557.7	.1548-02	.1721-02
23	355.00	.22500	72.000	.6637-01	.7981-01	.8879-01	64.59	4.287	.4059	561.3	.9852-03	.1096-02
23	355.00	.25000	73.000	.3776-01	.4541-01	.5052-01	64.56	2.438	.4061	561.7	.5605-03	.6237-03
23	355.00	.27500	74.000	.2628-01	.3156-01	.3510-01	64.74	1.700	.4046	559.5	.3896-03	.4333-03
23	355.00	.80000	75.000	.5221-02	.6262-02	.6956-02	65.40	.3415	.3987	551.4	.7734-04	.8590-04
23	372.50	.30000	56.000	.3325-01	.4004-01	.4460-01	64.05	2.129	.4107	568.0	.4941-03	.5504-03
23	372.50	.32500	57.000	.5691-01	.6850-01	.7627-01	64.23	3.655	.4091	565.7	.8454-03	.9413-03
23	372.50	.35000	58.000	.6155-01	.7408-01	.8248-01	64.24	3.954	.4090	565.6	.9143-03	.1018-02
23	372.50	.37500	59.000	.6805-01	.8187-01	.9112-01	64.40	4.382	.4076	563.7	.1010-02	.1125-02
23	372.50	.40000	60.000	.7504-01	.9025-01	.1004	64.53	4.842	.4065	562.1	.1114-02	.1240-02
23	372.50	.42500	61.000	.6349-01	.7635-01	.8495-01	64.56	4.099	.4062	561.8	.9425-03	.1049-02
23	372.50	.45000	62.000	.4014-01	.4825-01	.5367-01	64.70	2.597	.4050	560.0	.5956-03	.6625-03
23	372.50	.47500	63.000	.2339-01	.2811-01	.3127-01	64.78	1.515	.4042	559.0	.3471-03	.3860-03
23	372.50	.50000	64.000	.1156-01	.1389-01	.1544-01	64.95	.7510	.4027	557.0	.1715-03	.1907-03
23	372.50	.52500	65.000	.8527-02	.1024-01	.1137-01	65.17	.5557	.4008	554.3	.1264-03	.1405-03
23	372.50	.55000	66.000	.6265-02	.7518-02	.8354-02	65.23	4.087	.4002	553.4	.9284-04	.1032-03
23	372.50	.60000	67.000	.5347-02	.6414-02	.7126-02	65.34	.3493	.3993	552.2	.7921-04	.8800-04
23	372.50	.65000	68.000	.3207-02	.3848-02	.4275-02	65.31	.2095	.3995	552.5	.4752-04	.5279-04
23	372.50	.70000	69.000	.6089-02	.7306-02	.8117-02	65.30	.3976	.3996	552.7	.9022-04	.1002-03
23	372.50	.75000	70.000	.8304-02	.9974-02	.1109-01	64.96	.5394	.4026	556.8	.1231-03	.1369-03
23	400.00	.20000	31.000	.7842-01	.9429-01	.1049	64.58	5.064	.4060	561.5	.1164-02	.1295-02
23	400.00	.22500	32.000	.6217-01	.7492-01	.8349-01	63.85	3.970	.4125	570.4	.9245-03	.1030-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGB24)

OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
23	400.00	.25000	33.000	.4418-01	.5330-01	.5943-01	63.53	2.807	.4154	574.4	.6575-03	.7332-03
23	400.00	.27500	34.000	.3953-01	.4770-01	.5320-01	63.43	2.507	.4162	575.6	.5884-03	.6563-03
23	400.00	.30000	35.000	.3968-01	.4786-01	.5337-01	63.54	2.521	.4153	576.3	.5905-03	.6584-03
23	400.00	.32500	36.000	.4433-01	.5346-01	.5960-01	63.62	2.820	.4145	573.3	.6596-03	.7354-03
23	400.00	.35000	37.000	.5157-01	.6215-01	.6927-01	63.79	3.289	.4131	571.2	.7669-03	.8547-03
23	400.00	.37500	38.000	.5202-01	.6272-01	.6990-01	63.73	3.315	.4136	571.9	.7738-03	.8625-03
23	400.00	.40000	39.000	.4675-01	.5631-01	.6273-01	64.01	2.992	.4111	568.5	.6949-03	.7741-03
23	400.00	.42500	40.000	.4877-01	.5875-01	.6544-01	63.98	3.120	.4114	568.9	.7250-03	.8076-03
23	400.00	.45000	41.000	.4879-01	.5875-01	.6543-01	64.12	3.128	.4101	567.1	.7250-03	.8075-03
23	400.00	.47500	42.000	.6044-01	.7276-01	.8103-01	64.16	3.878	.4097	566.6	.8980-03	.1000-02
23	400.00	.50000	43.000	.7222-01	.8693-01	.9679-01	64.23	4.638	.4091	565.8	.1073-02	.1195-02
23	400.00	.52500	44.000	.7434-01	.8946-01	.9958-01	64.33	4.783	.4082	564.5	.1104-02	.1229-02
23	400.00	.55000	45.000	.6044-01	.7271-01	.8093-01	64.40	3.892	.4076	563.7	.8975-03	.9989-03
23	400.00	.60000	46.000	.2947-01	.3550-01	.3954-01	64.02	1.887	.4110	568.4	.4381-03	.4880-03
23	400.00	.65000	47.000	.1181-01	.1421-01	.1581-01	64.56	.7626	.4062	561.8	.1754-03	.1951-03
23	400.00	.70000	48.000	.1146-01	.1378-01	.1533-01	64.65	.7411	.4054	560.7	.1701-03	.1893-03
23	400.00	.75000	49.000	.9349-02	.1124-01	.1251-01	64.57	.6036	.4061	561.6	.1388-03	.1544-03
23	400.00	.80000	50.000	.9026-02	.1085-01	.1207-01	64.69	.5839	.4050	560.1	.1339-03	.1490-03
23	400.00	.85000	51.000	.8274-02	.9923-02	.1102-01	65.45	.5415	.3983	550.8	.1225-03	.1361-03
23	400.00	.87500	52.000	.8072-02	.9677-02	.1074-01	65.60	.5296	.3969	548.9	.1195-03	.1327-03
23	400.00	.90000	53.000	.8587-02	.1029-01	.1143-01	65.67	.5639	.3963	548.0	.1271-03	.1411-03
23	400.00	.95000	54.000	.1226-01	.1470-01	.1632-01	65.84	.7972	.3948	546.0	.1815-03	.2015-03
23	400.00	.95000	55.000	.1211-01	.1451-01	.1610-01	65.84	.8053	.3948	546.0	.1792-03	.1989-03
23	420.00	.28500	18.000	.3703-01	.4466-01	.4979-01	63.59	2.355	.4148	573.6	.5510-03	.6143-03
23	420.00	.33700	19.000	.4619-01	.5570-01	.6208-01	63.70	2.943	.4138	572.3	.6872-03	.7660-03
23	420.00	.39000	20.000	.5177-01	.6238-01	.6950-01	63.89	3.308	.4121	569.9	.7698-03	.8576-03
23	420.00	.42600	21.000	.4725-01	.5692-01	.6340-01	64.00	3.024	.4112	568.6	.7024-03	.7824-03
23	420.00	.47800	22.000	.4258-01	.5127-01	.5710-01	64.14	2.731	.4099	566.8	.6328-03	.7047-03
23	420.00	.53000	23.000	.4836-01	.5821-01	.6481-01	64.25	3.107	.4089	565.5	.7184-03	.7998-03
23	420.00	.56700	24.000	.6317-01	.7602-01	.8461-01	64.35	4.065	.4080	564.3	.9382-03	.1044-02
23	420.00	.62000	25.000	.6896-01	.8296-01	.9232-01	64.44	4.444	.4072	563.2	.1024-02	.1140-02
23	420.00	.67000	26.000	.4250-01	.5112-01	.5888-01	64.52	2.743	.4065	562.2	.6310-03	.7021-03
23	420.00	.70500	27.000	.2847-01	.3424-01	.3809-01	64.57	1.839	.4060	561.5	.4226-03	.4702-03
23	420.00	.75000	28.000	.1527-01	.1836-01	.2042-01	64.58	.9857	.4050	561.5	.2266-03	.2521-03
23	420.00	.80000	29.000	.1206-01	.1449-01	.1611-01	64.93	.7830	.4029	557.2	.1788-03	.1988-03
23	420.00	.82400	30.000	.5942-02	.7126-02	.7915-02	65.46	.3890	.3982	550.7	.8800-04	.9774-04
23	445.00	.27500	1.0000	.2589-01	.3115-01	.3668-01	64.34	1.666	.4082	564.5	.3845-03	.4280-03
23	445.00	.30000	2.0000	.2851-01	.3430-01	.3817-01	64.45	1.838	.4072	563.1	.4234-03	.4712-03
23	445.00	.32500	3.0000	.2821-01	.3391-01	.3772-01	64.69	1.825	.4050	560.1	.4186-03	.4657-03
23	445.00	.35000	4.0000	.3568-01	.4290-01	.4773-01	64.61	2.305	.4057	561.1	.5296-03	.5892-03
23	445.00	.37500	5.0000	.3382-01	.4065-01	.4622-01	64.74	2.190	.4046	559.5	.5019-03	.5582-03
23	445.00	.40000	6.0000	.4040-01	.4857-01	.5403-01	64.66	2.612	.4052	560.4	.5995-03	.6669-03
23	445.00	.42500	7.0000	.3469-01	.4169-01	.4637-01	64.74	2.246	.4046	559.5	.5147-03	.5725-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB24)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
23	445.00	.45000	8.0000	.3795-01	.4561-01	.5073-01	64.73	2.456	.4047	559.6	.5631-03	.6263-03
23	445.00	.47500	9.0000	.3446-01	.4140-01	.4604-01	64.84	2.234	.4037	558.3	.5112-03	.5684-03
23	445.00	.50000	10.000	.3333-01	.4005-01	.4453-01	64.87	2.163	.4034	557.9	.4944-03	.5498-03
23	445.00	.52500	11.000	.3489-01	.4191-01	.4660-01	64.87	2.263	.4034	557.9	.5174-03	.5754-03
23	445.00	.55000	12.000	.3544-01	.4257-01	.4734-01	64.88	2.299	.4033	557.7	.5256-03	.5845-03
23	445.00	.60000	13.000	.3448-01	.4142-01	.4604-01	64.96	2.240	.4026	556.8	.5113-03	.5685-03
23	445.00	.65000	14.000	.4468-01	.5367-01	.5967-01	64.91	2.900	.4031	557.4	.6626-03	.7368-03
23	445.00	.70000	15.000	.5120-01	.6147-01	.6832-01	65.09	3.332	.4015	555.2	.7589-03	.8335-03
23	445.00	.75000	16.000	.4177-01	.5015-01	.5574-01	65.10	2.719	.4014	555.1	.6192-03	.6882-03
23	445.00	.80000	17.000	.1722-01	.2065-01	.2294-01	65.47	1.127	.3981	550.6	.2550-03	.2833-03

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OH110 (ARC3.5HNT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

(RAGB24)

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT3	VINF FT/SEC	SCALE
25	5.074	5.280	32.50	.0000	407.5	1301.	317.7	.5497	201.4	.2291-03	3673.	.1750-01

RUN NUMBER	PHI DEG.	HS SPHERE TW=540 .3261
25	.0000	

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
25	355.00	.20000	71.000	.9418-01	.1143	.1279	58.85	5.543	.4313	571.2	.1375-02	.1539-02
25	355.00	.22500	72.000	.5521-01	.6703-01	.7506-01	58.68	3.240	.4329	573.3	.8065-03	.9032-03
25	355.00	.25000	73.000	.3023-01	.3671-01	.4111-01	58.66	1.773	.4331	573.5	.4416-03	.4946-03
25	355.00	.27500	74.000	.2677-01	.3249-01	.3638-01	58.78	1.573	.4320	572.1	.3909-03	.4377-03
25	355.00	.80000	75.000	.2360-02	.2858-02	.3196-02	59.42	.1403	.4260	564.1	.3441-04	.3846-04
25	372.50	.30000	56.000	.3308-01	.4750-01	.5324-01	58.34	2.280	.4362	577.6	.5714-03	.6405-03
25	372.50	.32500	57.000	.5411-01	.6575-01	.7367-01	58.44	3.162	.4352	576.3	.7910-03	.8863-03
25	372.50	.35000	58.000	.5777-01	.7020-01	.7866-01	58.45	3.377	.4351	576.1	.8445-03	.9463-03
25	372.50	.37500	59.000	.5810-01	.7058-01	.7907-01	58.53	3.401	.4343	575.2	.8492-03	.9513-03
25	372.50	.40000	60.000	.6581-01	.7992-01	.8952-01	58.59	3.856	.4337	574.4	.9616-03	.1077-02
25	372.50	.42500	61.000	.4749-01	.5767-01	.6459-01	58.62	2.784	.4335	574.1	.6939-03	.7772-03
25	372.50	.45000	62.000	.2768-01	.3360-01	.3763-01	58.71	1.625	.4327	572.9	.4043-03	.4528-03
25	372.50	.47500	63.000	.1475-01	.1791-01	.2005-01	58.76	.8670	.4322	572.3	.2155-03	.2413-03
25	372.50	.50000	64.000	.7108-02	.8624-02	.9653-02	58.89	.4186	.4309	570.7	.1038-03	.1162-03
25	372.50	.52500	65.000	.4540-02	.5504-02	.6159-02	59.07	.2682	.4293	568.5	.6624-04	.7411-04
25	372.50	.55000	66.000	.4048-02	.4908-02	.5491-02	59.10	.2393	.4290	568.1	.5906-04	.6608-04
25	372.50	.60000	67.000	.3274-02	.3968-02	.4438-02	59.21	.1939	.4280	566.8	.4776-04	.5341-04
25	372.50	.65000	68.000	.4826-02	.5847-02	.6540-02	59.25	.2859	.4276	566.3	.7038-04	.7871-04
25	372.50	.70000	69.000	.4838-02	.5862-02	.6555-02	59.30	.2869	.4271	565.6	.7055-04	.7889-04
25	372.50	.75000	70.000	.4102-02	.4973-02	.5664-02	59.10	.2424	.4290	568.1	.5985-04	.6696-04
25	400.00	.20000	31.000	.7970-01	.9679-01	.1094	58.58	4.669	.4339	574.6	.1165-02	.1304-02
25	400.00	.22500	32.000	.6180-01	.7518-01	.8431-01	58.13	3.593	.4381	580.1	.9043-03	.1014-02

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 55-O, 60-O, 83-O

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OH110, MODEL 55-O, ORBITER FUSELAGE

(RAG824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF FT/SEC	QDOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
25	400.00	.25000	33.000	.4593-01	.5590-01	.6271-01	57.99	2.664	.4394	581.8	.6724-03	.7543-03
25	400.00	.27500	34.000	.4491-01	.5467-01	.6133-01	57.96	2.603	.4397	582.3	.6575-03	.7376-03
25	400.00	.30000	35.000	.3971-01	.4832-01	.5420-01	58.01	2.303	.4392	581.6	.5812-03	.6519-03
25	400.00	.32500	36.000	.5096-01	.6201-01	.6955-01	58.06	2.959	.4388	581.0	.7459-03	.8366-03
25	400.00	.35000	37.000	.5176-01	.6296-01	.7060-01	58.14	3.009	.4380	580.1	.7574-03	.8493-03
25	400.00	.37500	38.000	.5318-01	.6470-01	.7255-01	58.13	3.092	.4381	580.1	.7782-03	.8727-03
25	400.00	.40000	39.000	.4838-01	.5881-01	.6592-01	58.32	2.821	.4363	577.8	.7075-03	.7930-03
25	400.00	.42500	40.000	.5008-01	.6090-01	.6827-01	58.26	2.918	.4369	578.5	.7325-03	.8212-03
25	400.00	.45000	41.000	.6183-01	.7514-01	.8421-01	58.39	3.610	.4357	576.9	.9040-03	.1013-02
25	400.00	.47500	42.000	.7169-01	.8713-01	.9763-01	58.41	4.188	.4354	576.6	.1048-02	.1175-02
25	400.00	.50000	43.000	.7887-01	.9583-01	.1074	58.48	4.612	.4349	575.8	.1153-02	.1292-02
25	400.00	.52500	44.000	.5861-01	.7119-01	.7975-01	58.55	3.431	.4342	575.0	.8565-03	.9595-03
25	400.00	.55000	45.000	.4617-01	.5607-01	.6280-01	58.60	2.705	.4337	574.4	.6746-03	.7556-03
25	400.00	.57500	46.000	.1766-01	.2147-01	.2406-01	58.41	1.032	.4355	576.7	.2583-03	.2894-03
25	400.00	.60000	47.000	.8813-02	.1070-01	.1197-01	58.80	.5182	.4318	571.9	.1287-03	.1441-03
25	400.00	.62500	48.000	.7864-02	.9541-02	.1068-01	58.88	.4630	.4310	570.8	.1148-03	.1285-03
25	400.00	.65000	49.000	.7412-02	.8993-02	.1007-01	58.87	.4363	.4312	571.0	.1082-03	.1211-03
25	400.00	.67500	50.000	.2627-02	.8813-02	.9863-02	58.98	.4285	.4301	569.5	.1061-03	.1187-03
25	400.00	.70000	51.000	.4248-02	.3508-02	.5748-02	59.52	.2529	.4250	562.9	.6190-04	.6918-04
25	400.00	.72500	52.000	.2899-02	.3508-02	.3920-02	59.64	.1729	.4240	561.4	.4223-04	.4718-04
25	400.00	.75000	53.000	.1919-02	.2322-02	.2594-02	59.72	.1146	.4232	560.4	.2795-04	.3122-04
25	400.00	.77500	54.000	.2625-02	.3176-02	.3548-02	59.74	.1568	.4231	560.2	.3823-04	.4271-04
25	400.00	.80000	55.000	.3371-02	.4075-02	.4551-02	59.89	.2019	.4217	558.4	.4907-04	.5479-04
25	420.00	.82500	56.000	.4041-01	.4917-01	.5516-01	58.03	2.345	.4390	581.4	.5915-03	.6634-03
25	420.00	.85000	57.000	.5006-01	.6090-01	.6831-01	58.07	2.907	.4386	580.8	.7326-03	.8216-03
25	420.00	.87500	58.000	.5216-01	.6344-01	.7113-01	58.18	3.034	.4377	579.6	.7631-03	.8556-03
25	420.00	.90000	59.000	.4638-01	.5640-01	.6322-01	58.26	2.702	.4369	578.5	.6784-03	.7605-03
25	420.00	.92500	60.000	.4859-01	.5906-01	.6619-01	58.39	2.837	.4357	577.0	.7105-03	.7962-03
25	420.00	.95000	61.000	.5670-01	.6888-01	.7718-01	58.49	3.316	.4347	575.7	.8287-03	.9285-03
25	420.00	.97500	62.000	.7556-01	.9177-01	.1028	58.59	4.427	.4338	574.5	.1104-02	.1237-02
25	420.00	.10000	63.000	.6382-01	.7748-01	.8677-01	58.68	3.745	.4329	573.3	.9323-03	.1044-02
25	420.00	.10500	64.000	.1895-01	.2300-01	.2575-01	58.79	1.114	.4319	572.0	.2767-03	.3098-03
25	420.00	.11000	65.000	.1144-01	.1388-01	.1554-01	58.85	.6733	.4314	571.2	.1671-03	.1870-03
25	420.00	.11500	66.000	.1003-01	.1217-01	.1362-01	58.87	.5903	.4312	571.0	.1464-03	.1639-03
25	420.00	.12000	67.000	.8536-02	.1035-01	.1158-01	59.13	.5048	.4287	567.7	.1245-03	.1393-03
25	420.00	.12500	68.000	.3242-02	.3925-02	.4387-02	59.49	.1929	.4254	563.3	.4725-04	.5281-04
25	445.00	.27500	1.0000	.2824-01	.3430-01	.3843-01	58.49	1.652	.4347	575.6	.4127-03	.4624-03
25	445.00	.30000	2.0000	.2918-01	.3544-01	.3970-01	58.56	1.709	.4341	574.8	.4264-03	.4776-03
25	445.00	.32500	3.0000	.3149-01	.3822-01	.4280-01	58.72	1.849	.4325	572.8	.4599-03	.5150-03
25	445.00	.35000	4.0000	.3839-01	.4661-01	.5220-01	58.66	2.252	.4331	573.5	.5608-03	.6281-03
25	445.00	.37500	5.0000	.3680-01	.4467-01	.5002-01	58.72	2.161	.4325	572.8	.5375-03	.6019-03
25	445.00	.40000	6.0000	.3996-01	.4851-01	.5433-01	58.67	2.344	.4330	573.4	.5837-03	.6537-03
25	445.00	.42500	7.0000	.3598-01	.4367-01	.4890-01	58.74	2.113	.4324	572.6	.5255-03	.5884-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING. MODELS 56-O. 60-O. 83-O

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OH110, MODEL 56-O. ORBITER FUSELAGE

(RAC824)

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
25	445.00	45000	8.0000	.3662-01	.4445-01	.4977-01	58.73	2.151	.4324	572.6	.5348-03	.5989-03
25	445.00	47500	9.0000	.3464-01	.4204-01	.4707-01	58.82	2.038	.4317	571.6	.5059-03	.5663-03
25	445.00	50000	10.000	.3465-01	.4205-01	.4707-01	58.86	2.040	.4312	571.1	.5060-03	.5664-03
25	445.00	52500	11.000	.3685-01	.4472-01	.5005-01	58.87	2.170	.4311	570.9	.5381-03	.6023-03
25	445.00	55000	12.000	.3508-01	.4256-01	.4763-01	58.92	2.067	.4307	570.3	.5121-03	.5731-03
25	445.00	60000	13.000	.3767-01	.4568-01	.5111-01	59.04	2.224	.4295	568.8	.5497-03	.6151-03
25	445.00	65000	14.000	.5466-01	.6827-01	.7415-01	59.06	3.228	.4294	568.6	.7975-03	.8923-03
25	445.00	70000	15.000	.4238-01	.5136-01	.5744-01	59.21	2.509	.4279	566.7	.6181-03	.6913-03
25	445.00	75000	16.000	.1693-01	.2052-01	.2295-01	59.25	1.003	.4276	566.3	.2469-03	.2782-03
25	445.00	80000	17.000	.9158-02	.1109-01	.1239-01	59.53	.5451	.4250	562.8	.1334-03	.1491-03

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OH110 (ARC3.5HWT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGB24)

FUSELAGE (56-0)

OH110, MODEL 56-0, ORBITER FUSELAGE

PARAMETRIC DATA

MACH = 5.300 BETA = .0000 RN/L = 5.000

TEST CONDITIONS

RUN NUMBER	RN/L /FT X10 6	MACH NUMBER	ALPHA DEG.	BETA DEG.	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUGS/ FT ³	VINF FT/SEC	SCALE
27	4.812	5.280	34.20	.0000	408.0	1346.	329.3	.5489	208.7	.2207-03	3739.	.1750-01
FUN NUMBER	PHI DEG.	HS SPHERE TW=540 3271										
27	.0000											

TEST DATA

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	OREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TH DEG. R	STN NO R=.90	STN NO R=.850
27	355.00	.20000	71.000	.9822-01	.1183	.1317	63.44	6.231	.4104	563.3	.1456-02	.1622-02
27	355.00	.22500	72.000	.3977-01	.4793-01	.5341-01	63.19	2.513	.4127	566.4	.5899-03	.6573-03
27	355.00	.25000	73.000	.2522-01	.3040-01	.3388-01	63.15	1.593	.4131	566.9	.3741-03	.4169-03
27	355.00	.27500	74.000	.2627-01	.3165-01	.3525-01	63.33	1.664	.4115	564.7	.3895-03	.4339-03
27	355.00	.80000	75.000	.1458-02	.1801-02	.2004-02	63.93	.9577-01	.4060	557.3	.2218-04	.2467-04
27	372.50	.30000	56.000	.3932-01	.4626-01	.5161-01	62.68	2.402	.4173	572.8	.5692-03	.6350-03
27	372.50	.32500	57.000	.5718-01	.6899-01	.7694-01	62.84	3.594	.4158	570.7	.8489-03	.9467-03
27	372.50	.35000	58.000	.5267-01	.6354-01	.7086-01	62.85	3.310	.4144	570.6	.7819-03	.8719-03
27	372.50	.37500	59.000	.5249-01	.6329-01	.7056-01	63.01	3.307	.4133	568.7	.7788-03	.8682-03
27	372.50	.40000	60.000	.5982-01	.7211-01	.8037-01	63.12	3.776	.4130	567.3	.8874-03	.9890-03
27	372.50	.42500	61.000	.4247-01	.5120-01	.5705-01	63.16	2.683	.4130	566.8	.6300-03	.7021-03
27	372.50	.45000	62.000	.2358-01	.2842-01	.3166-01	63.29	1.493	.4119	565.3	.3497-03	.3896-03
27	372.50	.47500	63.000	.1321-01	.1591-01	.1772-01	63.36	.8367	.4112	564.4	.1052-03	.1171-03
27	372.50	.50000	64.000	.7093-02	.8547-02	.9517-02	63.52	.4509	.4097	562.3	.1052-03	.1171-03
27	372.50	.52500	65.000	.3976-02	.4784-02	.5325-02	63.73	.2534	.4079	559.8	.5889-04	.6555-04
27	372.50	.55000	66.000	.3528-02	.4245-02	.4724-02	63.78	.2250	.4074	559.2	.5225-04	.5815-04
27	372.50	.60000	67.000	.3167-02	.3809-02	.4239-02	63.87	.2023	.4065	558.0	.4689-04	.5218-04
27	372.50	.65000	68.000	.4081-02	.4908-02	.5461-02	63.86	.2606	.4067	558.1	.6042-04	.6723-04
27	372.50	.70000	69.000	.3654-02	.4406-02	.4904-02	63.84	.2339	.4069	558.4	.5425-04	.6037-04
27	372.50	.75000	70.000	.2552-02	.3073-02	.3422-02	63.53	.1621	.4097	562.3	.3782-04	.4212-04
27	400.00	.20000	31.000	.8560-01	.1032	.1150	63.10	5.402	.4135	567.5	.1270-02	.1415-02
27	400.00	.22500	32.000	.6754-01	.8160-01	.9108-01	62.42	4.215	.4197	576.0	.1004-02	.1120-02

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OH110 (ARC3.5HMT-253) ORBITER AERO HEATING, MODELS 56-0, 60-0, 83-0

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(RAGB24)

OH110, MODEL 56-0, ORBITER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=.90	STN NO R=.850
27	400.00	.25000	33.000	.4695-01	.5677-01	.6341-01	62.14	2.917	.4222	579.4	.6983-03	.7799-03
27	400.00	.27500	34.000	.3576-01	.4326-01	.4832-01	62.06	2.219	.4229	580.4	.5321-03	.5943-03
27	400.00	.30000	35.000	.2682-01	.3243-01	.3621-01	62.16	1.667	.4219	579.1	.3989-03	.4454-03
27	400.00	.32500	36.000	.4865-01	.5882-01	.6567-01	62.25	3.028	.4212	578.1	.7235-03	.8078-03
27	400.00	.35000	37.000	.5185-01	.6264-01	.6993-01	62.39	3.235	.4199	576.3	.7706-03	.8602-03
27	400.00	.37500	38.000	.5183-01	.6263-01	.6992-01	62.36	3.232	.4202	576.7	.7705-03	.8601-03
27	400.00	.40000	39.000	.4790-01	.5783-01	.6452-01	62.62	2.999	.4179	573.5	.7115-03	.7938-03
27	400.00	.42500	40.000	.5011-01	.6050-01	.6751-01	62.59	3.136	.4181	573.8	.7444-03	.8305-03
27	400.00	.45000	41.000	.6651-01	.8028-01	.8954-01	62.74	4.173	.4168	572.0	.9877-03	.1102-02
27	400.00	.47500	42.000	.7653-01	.9236-01	.1030	62.78	4.804	.4164	571.5	.1136-02	.1267-02
27	400.00	.50000	43.000	.7654-01	.9235-01	.1030	62.84	4.810	.4158	570.7	.1136-02	.1267-02
27	400.00	.52500	44.000	.5157-01	.6220-01	.6935-01	62.94	3.246	.4150	569.6	.7654-03	.8534-03
27	400.00	.55000	45.000	.3954-01	.4769-01	.5316-01	63.00	2.491	.4145	568.8	.5868-03	.6542-03
27	400.00	.60000	46.000	.1392-01	.1678-01	.1870-01	63.10	.8783	.4135	567.5	.2065-03	.2302-03
27	400.00	.65000	47.000	.7928-02	.9556-02	.1065-01	63.16	.5007	.4130	566.9	.1176-03	.1311-03
27	400.00	.70000	48.000	.7388-02	.8903-02	.9919-02	63.25	.4673	.4122	565.7	.1096-03	.1221-03
27	400.00	.75000	49.000	.6817-02	.8216-02	.9156-02	63.17	.4306	.4129	565.3	.1011-03	.1127-03
27	400.00	.80000	50.000	.5674-02	.6836-02	.7616-02	63.28	.3590	.4057	565.8	.8413-04	.9373-04
27	400.00	.85000	51.000	.2646-02	.3181-02	.3539-02	63.97	.1693	.4057	565.8	.3917-04	.4357-04
27	400.00	.87500	52.000	.1884-02	.2264-02	.2518-02	64.11	.1208	.4044	565.1	.2787-04	.3100-04
27	400.00	.90000	53.000	.1161-02	.1395-02	.1551-02	64.19	.1445	.4038	554.2	.1718-04	.1910-04
27	400.00	.92500	54.000	.1424-02	.1710-02	.1902-02	64.18	.9136-01	.4038	554.2	.2106-04	.2342-04
27	400.00	.95000	55.000	.2246-02	.2698-02	.2999-02	64.34	2.544	.4024	552.3	.3322-04	.3693-04
27	420.00	.28500	18.000	.4090-01	.4944-01	.5522-01	62.20	2.971	.4216	578.6	.6082-03	.6792-03
27	420.00	.33700	19.000	.4768-01	.5763-01	.6434-01	62.31	2.971	.4206	577.3	.7089-03	.7915-03
27	420.00	.39000	20.000	.5086-01	.6143-01	.6856-01	62.50	3.179	.4189	575.0	.7558-03	.8434-03
27	420.00	.42600	21.000	.4558-01	.5504-01	.6141-01	62.59	2.853	.4181	573.8	.6771-03	.7555-03
27	420.00	.47800	22.000	.4999-01	.6034-01	.6730-01	62.74	3.137	.4167	572.0	.7424-03	.8281-03
27	420.00	.53000	23.000	.6570-01	.7926-01	.8839-01	62.85	4.129	.4158	570.6	.9753-03	.1088-02
27	420.00	.56700	24.000	.7612-01	.9181-01	.1024	62.95	4.792	.4149	569.4	.1130-02	.1259-02
27	420.00	.62000	25.000	.4627-01	.5594-01	.6246-01	62.22	2.879	.4214	578.4	.6881-03	.7683-03
27	420.00	.67000	26.000	.1177-01	.1419-01	.1582-01	63.12	.7432	.4133	567.3	.1747-03	.1947-03
27	420.00	.70500	27.000	.9597-02	.1157-01	.1289-01	63.17	.6063	.4129	566.7	.1424-03	.1586-03
27	420.00	.75000	28.000	.8751-02	.1055-01	.1176-01	63.16	.5527	.4130	566.8	.1298-03	.1447-03
27	420.00	.80000	29.000	.5607-02	.6751-02	.7519-02	63.49	.3560	.4100	562.8	.8310-04	.9254-04
27	420.00	.82400	30.000	.1757-02	.2112-02	.2348-02	64.14	.1127	.4042	554.7	.2600-04	.2891-04
27	445.00	.27500	1.0000	.2942-01	.3548-01	.3957-01	62.90	1.850	.4153	570.0	.4366-03	.4869-03
27	445.00	.30000	2.0000	.3108-01	.3748-01	.4178-01	63.01	1.959	.4143	568.6	.4612-03	.5141-03
27	445.00	.32500	3.0000	.3022-01	.3642-01	.4058-01	63.25	1.912	.4121	565.6	.4482-03	.4994-03
27	445.00	.35000	4.0000	.3897-01	.4697-01	.5234-01	63.18	2.462	.4128	566.6	.5780-03	.6441-03
27	445.00	.37500	5.0000	.3889-01	.4661-01	.5193-01	63.29	2.448	.4118	565.2	.5737-03	.6391-03
27	445.00	.40000	6.0000	.3992-01	.4811-01	.5361-01	63.22	2.524	.4124	566.0	.5921-03	.6598-03
27	445.00	.42500	7.0000	.3570-01	.4302-01	.4792-01	63.30	2.260	.4117	565.0	.5294-03	.5898-03

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OH110 (ARC3.5HWT-253) ORBITTER AERO HEATING, MODELS 56-0, 60-0, 83-0

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OH110, MODEL 56-0, ORBITTER FUSELAGE

RUN NUMBER	ZB	XB/LB	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=.90	STN NO R=.850
27	445.00	45000	8.0000	.3682-01	.4436-01	.4042-01	63.29	2.330	.4118	565.2	.5459-03	.6082-03
27	445.00	47500	9.0000	.3485-01	.4198-01	.4676-01	63.39	2.209	.4109	564.0	.5167-03	.5755-03
27	445.00	50000	10.000	.3569-01	.4298-01	.4787-01	63.43	2.264	.4106	563.5	.5290-03	.5892-03
27	445.00	52500	11.000	.3737-01	.4501-01	.5013-01	63.42	2.370	.4106	563.5	.5539-03	.6170-03
27	445.00	55000	12.000	.3670-01	.4420-01	.4922-01	63.44	2.328	.4104	563.3	.5440-03	.6059-03
27	445.00	60000	13.000	.4037-01	.4861-01	.5413-01	63.51	2.564	.4098	562.4	.5983-03	.6663-03
27	445.00	65000	14.000	.6324-01	.7700-01	.8575-01	63.47	4.058	.4102	563.0	.9477-03	.1055-02
27	445.00	70000	15.000	.2697-01	.3246-01	.3614-01	63.64	1.716	.4087	560.9	.3996-03	.4448-03
27	445.00	75000	16.000	.1169-01	.1407-01	.1566-01	63.66	.7443	.4085	560.6	.1732-03	.1928-03
27	445.00	80000	17.000	.5217-02	.6272-02	.6977-02	63.99	.3338	.4055	556.6	.7722-04	.8591-04